



0000089788

**Transcript Exhibit(s)**

**Docket #(s):** W-20589A-08-0173

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**Exhibit # :** A1-A17, S1, S2

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Arizona Corporation Commission  
DOCKETED

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# **Exhibit A-1**

**(May 21, 2008 CC&N Application)**

**Ridgeline Water Company, L.L.C.  
Docket No. W-20589A-08-0173**



## BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

MIKE GLEASON, Chairman  
 WILLIAM A. MUNDELL  
 JEFF HATCH-MILLER  
 KRISTIN K. MAYES  
 GARY PIERCE

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MAR 21 2008

ARIZONA CORP. COMM  
 400 W CONGRESS STE 218 TUCSON AZ 85701

IN THE MATTER OF THE APPLICATION OF )  
 RIDGELINE WATER COMPANY, L.L.C. FOR ) DOCKET NO. W-  
 A CERTIFICATE OF CONVENIENCE AND ) APPLICATION  
 NECESSITY TO PROVIDE WATER SERVICE )  
 TO AND WITHIN AN UNINCORPORATED )  
 AREA IN PIMA COUNTY, ARIZONA. )

Ridgeline Water Company, L.L.C. ("Ridgeline"), by and through its undersigned attorney, submits this Application for an Opinion and Order of the Commission granting Ridgeline a Certificate of Convenience and Necessity ("CC&N") to provide water service in an unincorporated area within Pima County, Arizona. In support of its Application, Ridgeline provides the following information.

## I.

## IDENTIFICATION OF APPLICANT

Ridgeline is an Arizona limited liability company, and it is in good standing with the Commission's Corporations Division. A Certificate of Good Standing attesting to that effect is attached hereto as Appendix "A" and is incorporated herein by this reference.

## II.

## APPLICANT'S CONTACT PERSONS

## AND CONTACT INFORMATION

The name of and contact information for Ridgeline's General Manager in connection with this Application are as follows:

Jeffrey S. Utsch



General Manager  
Ridgeline Water Company, L.L.C.  
6141 N. Pomona Road  
Tucson, Arizona 85704  
Phone: (520) 977-7946  
Fax: (520) 545-0113

The name of and contact information for Ridgeline's attorney in connection with this Application are as follows:

Lawrence V. Robertson, Jr.  
P. O. Box 1448  
Tubac, Arizona 85646  
Phone: (520) 398-0411  
Fax: (520) 398-0412  
Email: [Tubaclawyer@aol.com](mailto:Tubaclawyer@aol.com)

### III.

#### DESCRIPTION OF CIRCUMSTANCES

#### OCCASIONING APPLICATION

Ridgeline has received a request from Pollux Properties, L.L.C. ("Pollux") for Ridgeline to provide water service to and within approximately 632 acres of land which Pollux owns in an unincorporated area of Pima County, Arizona, southwest of the City of Tucson. A copy of Pollux's request for service is attached hereto as Appendix "B" and is incorporated herein by this reference. Attached hereto as Appendix "C" and incorporated herein by this reference is a copy of the legal description(s) for the aforesaid 632 acres.<sup>1</sup> Attached hereto as Appendix "D" and incorporated herein by this reference is a copy of a map of the proposed water service area which is the subject of this Application.

Pollux intends to facilitate the development of Ridgeline Estates on the 632 aforesaid acres. Ridgeline Estates will consist of 136 single-family residential units situated on 4-5 acre lots; and, the acreage in question is currently zoned and entitled for this type and amount of development. The average lot sales price is anticipated to be \$250,000 and individual home

<sup>1</sup> Pollux owns additional acreage (approximately 41 acres) in the vicinity of the proposed water service area. However, Pollux recently decided to withdraw those 41 acres from the total 673 acres referred to in Appendices "B," "E" and "F." Thus, those 41 acres are not included within the boundaries of the CC&N requested by this Application; and, the legal descriptions for that acreage (Parcels 25 through 27) have been deleted from the Land America legal descriptions attached hereto as Appendix "C."



1 construction costs are anticipated to be on the order of \$700,000 to \$2,000,000. At present, it is  
2 contemplated that Pollux or its affiliates will perform or cause the performance of the role of  
3 master developer of Ridgeline Estates. The final development of individual residential structures  
4 will be undertaken by qualified and experienced residential contractors selected by the ultimate  
5 lot owners. In that regard, it is currently anticipated that build-out of the 632 acres will occur  
6 over a five (5) year period of time.

7 In response to Pollux's letter, Ridgeline has advised Pollux that Ridgeline is willing and  
8 able to provide the requested service, subject to (i) Ridgeline's prior receipt of a CC&N from the  
9 Commission authorizing provision of the requested water service on terms and conditions  
10 acceptable to Ridgeline, and (ii) the consummation of Commission-approved line extension  
11 agreements and off-site facilities agreements between Ridgeline and Pollux as and when  
12 determined to be appropriate by Ridgeline. In turn, Pollux has requested that Ridgeline proceed  
13 with the preparation and filing of this Application. Copies of this exchange of correspondence  
14 between Ridgeline and Pollux are attached hereto as Appendices "E" and "F," respectively, and  
15 are incorporated herein by this reference.

#### 16 IV.

#### 17 DESCRIPTION OF CONTEMPLATED 18 WATER SYSTEM FACILITIES

19 Attached hereto as Appendix "G" and incorporated herein by this reference is a copy of a  
20 December 2007 Water System Master Plan ("Water Plan") for the subject acreage, as prepared  
21 by Greg Carlson Engineering, L.L.C. ("Carlson Engineering"). As therein indicated, the demand  
22 criteria for the contemplated single-family residential units are based on standard engineering  
23 practice for master planning in the metropolitan Tucson area. In turn, the estimated demand was  
24 used to determine the required production, storage and booster station facilities for the  
25 contemplated water system. At full build-out, Ridgeline Estates' water requirements will  
26 necessitate the following facilities: (i) two (2) wells, one (1) 150 gpm well and one (1) 250 gpm  
27 well; (ii) three (3) storage reservoirs, including a 181,200 gallon central system storage reservoir,  
28 a 12,240 gallon forebay and a 3,400 gallon forebay; and (iii) two (2) booster stations. The



1 aggregate storage reservoir capacity will be 196,840 gallons, which has been sized using Arizona  
2 Department of Environmental Quality ("ADEQ") Engineering Bulletin No. 10 criteria and the  
3 Arizona Administrative Code.

4 Included within the Water Plan as Figures 2 and 3 are maps which depict the  
5 contemplated location of the aforesaid facilities on a full build-out and an interim condition  
6 basis, respectively, within the boundaries of the proposed CC&N.

7 The 8-inch transmission water main and facility piping depicted on the maps comprise  
8 the transmission "backbone" for the contemplated water system. Larger and smaller-sized  
9 distribution mains will be designed and constructed to facilitate the delivery of water service to  
10 the several pressure zones and ultimate point(s) of use at the required regulatory pressure(s). In  
11 that regard, the Water Plan design contemplates a minimum fire flow requirement of 1,000 gpm  
12 for a two (2) hour duration.

13 **V.**

14 **ESTIMATED COST AND FINANCING OF**  
15 **CONTEMPLATED WATER SYSTEM FACILITIES**

16 Attached hereto as Appendix "H" and incorporated herein by this reference is an analysis  
17 of the estimated cost of construction of the water system facilities contemplated by the Water  
18 Plan. These estimates have been prepared by Thomas J. Bourassa, C.P.A., a utility consultant  
19 who is well known to the Commission and its Staff, who has taken these estimates provided to  
20 him by Pollux and projected Ridgeline's plant account balances, by year, for the first five (5) of  
21 operation.

22 In conjunction with financing the construction of the aforesaid water system facilities,  
23 Ridgeline currently anticipates that it will use a combination of funds provided by the master  
24 developer in the form of Advances In Aid of Construction, and common equity. In that regard,  
25 attached hereto as Appendix "I" and incorporated herein by this reference is a projected Balance  
26 Sheet reflecting the financial condition of Ridgeline for the initial five (5) years of operation, as  
27 prepared by Mr. Bourassa. Funds obtained from the master developer will be by means of line  
28 extension agreements and/or and off-site facilities agreements approved by the Commission.



VI.

**PROPOSED RATES AND CHARGES**

Attached hereto as Appendix "J" and incorporated herein by this reference is a schedule of proposed rates and charges for water service to and within the proposed service area. These rates and charges also have been prepared by Mr. Bourassa. As may be noted therefrom, the commodity rate design is priced with the objective of promoting conservation. In addition, it is Ridgeline's understanding that Pollux intends to impose certain conditions, covenants and restrictions ("CC&R") on the aforesaid 632 acres which also will promote water conservation. The single-family residences in Ridgeline Estates will have individual septic systems, and thus effluent will not be available as a conservation measure.

VII.

**ESTIMATED ANNUAL OPERATING  
REVENUES, EXPENSES AND CUSTOMERS**

Attached hereto as Appendix "K" and incorporated herein by this reference are schedules depicting, by year for the first five (5) years of operation, the estimated annual number of customers and associated operating revenues and expenses for Ridgeline. These estimates also have been prepared by Mr. Bourassa, and are based upon a combination of (i) development pace estimates provided by Pollux, (ii) projected expenditures prepared by Mr. Bourassa in consultation with Ridgeline, and (iii) the rates and charges for water service herein proposed by Ridgeline.

VIII.

**ESTIMATED SCHEDULE FOR  
CONSTRUCTION OF WATER SYSTEM FACILITIES**

It is currently anticipated that development of Ridgeline Estates will occur over a five (5) year period of time. In that regard, Appendix "H" hereto as prepared by Mr. Bourassa also provides, in effect, a schedule of estimated commencement and completion of construction dates for the water system facilities contemplated by the Water Plan described in Section IV above.



1 However, it is important to recognize that these dates are estimates, not guarantees, and that the  
2 actual dates will be significantly influenced by the pace at which development occurs.

3 **IX.**

4 **ANALYSES OF ASSURED**  
5 **WATER SUPPLY AND WATER QUALITY**

6 Attached hereto as Appendix "L" and incorporated herein by this reference is a copy of  
7 an a February 14, 2008 Analysis of Assured Water Supply ("Analysis"), as issued the Arizona  
8 Department of Water Resources ("ADWR") in response to an application submitted by Pollux  
9 for Ridgeline Estates. As indicated in the Analysis, ADWR

10 "...has determined that 78.28 acre-feet per year of ground water  
11 will be physically and continuously available"

12 to the Ridgeline Estates development for the statutorily requisite 100 years. It is contemplated  
13 that Pollux will obtain the Certificate of Assured Water Supply referred to in the Analysis  
14 incident to the final platting of Ridgeline Estates as a subdivision.

15 Attached hereto as Appendix "M" and incorporated herein by this reference are copies of  
16 pages 11 and 12 of an August 10, 2007 Hydrogeologic Report prepared for Pollux by Chuck M.  
17 Dickens, a Consulting Hydrogeologist, who is a licensed Geologist in Arizona and California.  
18 Mr. Dickens' Hydrogeologic Report was submitted in support of Pollux's Application for  
19 Analysis of Assured Water Supply, which resulted in the aforesaid February 14, 2008 Analysis  
20 issued by ADWR. As may be noted from pages 11 and 12 of the Hydrogeologic Report, (i) no  
21 arsenic and no nitrate were detected in the groundwater pumped from Well No. 1 and Well No.  
22 2, and (ii) the fluoride concentration level detected in each well was substantially below the  
23 allowed drinking water level.

24 **X.**

25 **CURTAILMENT TARIFF**

26 Attached hereto as Appendix "N" and incorporated herein by this reference is a copy of  
27 the Curtailment Plan Tariff which Ridgeline is hereby requesting be contemporaneously  
28



1 approved by the Commission in the event that a CC&N is granted in response to this  
2 Application.

3 **XI.**

4 **ADDITIONAL APPROVALS**

5 Ridgeline shortly will be filing an application with the Pima County Board of Supervisors  
6 requesting a Public Utility License Agreement ("License") for such public roadways and  
7 right(s)-of-way which may abut or transect the Ridgeline Estates. A copy of that License will be  
8 filed with the Commission's Docket Control upon receipt of the same by Ridgeline.

9 In addition, in the event of a Commission decision granting Ridgeline the CC&N  
10 requested by this Application, and in connection with subsequent construction of the  
11 contemplated water system for Ridgeline Estates, Ridgeline will file with the Commission copies  
12 of the Approval(s) to Construct and Approval(s) of Construction which are issued by ADEQ in  
13 connection with the design and construction of the various phases of the water system.

14 **XII.**

15 **MISCELLANEOUS**

16 The 632 acres of which Ridgeline Estates will be comprised are not located within any  
17 city or town. In addition, such acreage is not located within or adjacent to the existing  
18 certificated service area of any public service corporation providing water or wastewater service.  
19 Finally, there are no existing water utility service connections within the proposed CC&N area.

20 As previously noted in Section VI above, the single-family residences in Ridgeline  
21 Estates will have individual septic systems, and thus effluent will not be available as a  
22 conservation measure. In addition, there are no surface water sources of supply (including  
23 Central Arizona Project water) available to the proposed CC&N area. However, the nature of  
24 the development anticipated for Ridgeline Estates will not include any parks, recreation areas,  
25 golf courses, greenbelts, ornamental lakes or other water features.



LAWRENCE V. ROBERTSON, JR.  
ATTORNEY AT LAW  
P.O. Box 1448  
Tubac, Arizona 85646  
(520) 398-0411

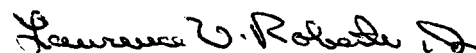
XIII.

CONCLUSION

WHEREFORE, and based upon the discussion set forth in the preceding sections of this Application and the information contained in Appendices "A" through "N" hereto, Ridgeline respectfully requests that the Commission issue an Opinion and Order granting Ridgeline a CC&N to provide water service in the area legally described and graphically depicted in Appendices "C" and "D" hereto, respectively.

Dated this 21<sup>st</sup> day of March 2008.

Respectfully submitted,



Lawrence V. Robertson, Jr.

Attorney for Ridgeline Water Company, L.L.C.

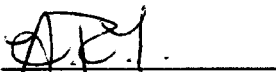
The original and thirteen (13) copies of the foregoing Application have been filed this 21<sup>st</sup> day of March 2008 with:

Docket Control  
Arizona Corporation Commission  
c/o 400 W. Congress, Suite 218  
Tucson, Arizona 85701

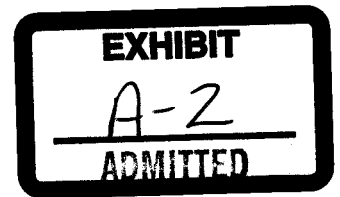
A copy of the foregoing Application has been emailed or mailed this 21<sup>st</sup> day of March 2008 to:

Christopher Kempley, Chief Counsel  
Legal Division  
Arizona Corporation Commission  
1200 West Washington Street  
Phoenix, Arizona 85007

Ernest Johnson, Director  
Utilities Division  
Arizona Corporation Commission  
1200 West Washington Street  
Phoenix, Arizona 85007







# **Exhibit A-2**

(September 5, 2008 Supplement to  
Application)

Ridgeline Water Company, L.L.C.  
Docket No. W-20589A-08-0173



## BEFORE THE ARIZONA CORPORATION COMMISSION

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AZ CORP COMMISSION  
DOCKET CONTROL

MIKE GLEASON, Chairman  
 WILLIAM A. MUNDELL  
 JEFF HATCH-MILLER  
 KRISTIN K. MAYES  
 GARY PIERCE

IN THE MATTER OF THE APPLICATION OF )  
 RIDGELINE WATER COMPANY, L.L.C. FOR ) DOCKET NO. W-20589A-08-0173  
 A CERTIFICATE OF CONVENIENCE AND )  
 NECESSITY TO PROVIDE WATER SERVICE ) SUPPLEMENT TO CC&N  
 TO AND WITHIN AN UNINCORPORATED ) APPLICATION  
 AREA IN PIMA COUNTY, ARIZONA. )

## I.

## INTRODUCTION

Ridgeline Water Company, L.L.C. ("Ridgeline") hereby supplements its March 21, 2008 Application ("Application") in the above-captioned and above-docketed proceedings. The purpose of this Supplement is to address certain concerns that were expressed by the Commission's Staff in the August 14, 2008 Staff Report ("Staff Report"), which was filed in the aforesaid proceeding. In that regard, it is Ridgeline's intent to satisfactorily address and resolve those concerns at this juncture, in order that the Commission's Staff may revise or supplement the Staff report so as to recommend approval of Ridgeline's currently pending Application, in the event that the Commission's Staff should choose to do so.

In connection with the above, the discussion set forth below will address the aforementioned concerns of the Commission's Staff in the same sequence in which they appear in the Staff Report; and, for convenience, each of the topics addressed will be identified using the descriptive text used in the Staff Report.



II.

**"HIGHLY LEVERAGED NATURE" OF RIDGELINE'S PARENT**

Ridgeline is a wholly-owned subsidiary of Pollux Properties, L.L.C. ("Pollux"). The Staff Report notes that the unaudited Balance Sheet and Income Statement for Pollux for the year ended December 31, 2007 reflects reported

"...total assets of approximately \$3.97 million, total liabilities of approximately \$3.96 million, total equity of \$15,639 and net income of \$703." [Executive Summary, page 1; and, Staff Report, page 3]

Against this financial background, the Staff Report concludes as follows:

"Because of the highly leveraged nature of the Parent Company, coupled by the Company's lack of technical and managerial experience with operating a water utility, Staff recommends denial. Staff is concerned because the Company's financials do not demonstrate that the Company has the ability to sustain itself thereby placing its customers at risk." [Executive Summary, page 1; and, Staff Report, page 3]

Pollux (and Ridgeline) propose to address and resolve the aforesaid "highly leveraged nature" concern of the Commission's Staff in the following manner. The liabilities of Pollux in question are in the form of Deed(s) of Trust which were executed by Pollux for the benefit of Pollux's investors, incident to their providing funds to acquire the real property which constitutes the aforesaid assets of Pollux.<sup>1</sup> In view of the concern which has been expressed in the Staff Report as to the "highly leveraged nature" of Pollux, each of these investors has agreed to convert its current beneficial interest under a Deed of Trust into an equity ownership interest in Pollux. The conversion will be accomplished through a Private Offering Memorandum and Subscription Agreements. The executed originals of the Subscription Agreements will be sent to and retained by Pollux's Managing Member, and copies will be filed with the Commission. At the conclusion of this conversion process, Pollux will have approximately \$3.97 million in assets in the form of the aforesaid real property, and approximately \$3.97 million in equity.

<sup>1</sup> This real property consists of the approximately 632 acres of land described in the Application, known as Ridgeline Estates, which Ridgeline is requesting authorization to serve.



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III.

**"LACK OF TECHNICAL AND MANAGERIAL EXPERIENCE"**

As noted in Section II above, in the Staff Report the Commission's Staff has also expressed a concern with regard to Ridgeline's "lack of technical and managerial experience with operating a water utility." [Executive Summary, page 1; and, Staff Report, page 3] Ridgeline readily acknowledges that it has no previous experience of that nature. It is for that very reason that Ridgeline has contemplated that it would retain the services of Southwestern Utility Management, Inc. ("SWUM") to assist it in operating the water company, in the event that Ridgeline's Application in this proceeding should be granted.

In that regard, attached as Appendix "A" to this Supplement, and incorporated herein by this reference, is a copy of an August 25, 2008 letter from SWUM confirming its interest in and willingness to provide the requisite technical and managerial services to Ridgeline. In addition, attached to this Supplement as Appendix "B," and incorporated herein by this reference, is a sample of the form of contract upon which the agreement between Ridgeline and SWUM would be structured. In that regard, SWUM has advised Ridgeline that SWUM intends to designate James D. Dorough as the Certified Operator for Ridgeline's contemplated water system. A copy of Mr. Dorough's certifications from the Arizona Department of Environmental Quality is attached at Appendix "C," and is incorporated herein by this reference.

Accordingly, by means of the above-described contractual arrangement with SWUM, Ridgeline proposes to address and resolve the Commission Staff's concern as to Ridgeline's previous "lack of technical and managerial experience with operating a water utility."

IV.

**RIDGELINE'S "ABILITY TO SUSTAIN  
ITSELF AS A PUBLIC SERVICE CORPORATION"**

Because of the two (2) concerns discussed in Sections II and III above, the Staff Report notes that

"...Staff is seriously concerned about Ridgeline's ability to sustain itself as a public service corporation." [Staff Report, page 3]



1 In connection with this particular concern, as well as the ability of Ridgeline to raise the \$1.8  
2 million in common equity which the Application contemplates would be that portion of the  
3 proposed water system infrastructure to be funded by Ridgeline, the water company offers the  
4 following observations.

5 The aforementioned investors in Pollux have a direct and substantial financial in  
6 Ridgeline's ability to reliably and adequately provide water service in satisfaction of the  
7 requirements of future residents of Ridgeline Estates. In fact, the success of their investment in  
8 Pollux and the Ridgeline Estates project depends upon the existence of a well-qualified and  
9 financially sound water provider in the form of Ridgeline, inasmuch as there are no other  
10 existing water providers in the vicinity of Ridgeline Estates. Accordingly, the investors of  
11 Pollux are prepared to either (i) directly invest as common equity owners of Ridgeline, or (ii)  
12 assist in raising the projected \$1.8 million in common equity for the water company, once it has  
13 received a CC&N authorizing it to provide water service to Ridgeline Estates. In that regard, the  
14 Managing Member of Pollux is experienced in project financing, having raised approximately  
15 \$25 million in common equity during the past 10 years in connection with several development  
16 projects.

17 Accordingly, because of the course(s) of action described in Section II and III above,  
18 together with the anticipated ability of Pollux's investors to provide or assist in raising the  
19 aforementioned \$1.8 million in common equity for the water company, Ridgeline anticipates that  
20 it will clearly have the requisite ability to sustain itself as a public service corporation, in the  
21 event that the CC&N requested in its Application is granted.

## 22 V.

### 23 MISCELLANEOUS

24 Both the Executive Summary and the Staff Report contain various conditions which the  
25 Commission Staff recommends that the Commission adopt, in the event that the Commission  
26 should decide to grant Ridgeline the CC&N requested in the Application. In view of the  
27 discussion set forth in Sections II through IV above, Ridgeline respectfully requests that the  
28



1 Commission's Staff reconsider whether either of the two (2) conditions discussed below are  
2 necessary or appropriate.

3 Condition No. 6 would require that Ridgeline file evidence that it has obtained either a  
4 performance bond or an irrevocable right draft letter of credit in the amount of \$250,000 before it  
5 serves its first water customer. Given the course(s) of action discussed in Sections II through IV  
6 above, Ridgeline believes there will be no impediment to its ability to reliability and  
7 continuously discharge its obligations as a public service corporation; and, thus Ridgeline hereby  
8 requests that proposed Condition No. 6 be withdrawn.

9 Condition No. 7 conditions the effectiveness of such CC&N as might be granted upon  
10 Ridgeline attaining the 30% (AIAC/CAIC)/70% (equity) capital structure recommended by the  
11 Commission's Staff by the end of Ridgeline's fifth year of operation. The 54%  
12 (AIAC/CAIC)/46% (equity) capital structure at the end of the fifth year of operation, which is  
13 reflected in the financial data filed by Ridgeline in support of the Application, represents the  
14 actual allocation between on-site facilities and off-site facilities for the water system  
15 infrastructure Ridgeline intends to install to serve Ridgeline Estates. The former would be  
16 funded through advances-in-aid of construction and contributions-in-aid of construction.  
17 Whereas, the latter would be funded through common equity provided by the water company's  
18 investors. In order to achieve the capital structure recommended by the Commission's Staff, the  
19 water company would be required to fund water system infrastructure normally funded by  
20 developers. Accordingly, against this background, Ridgeline hereby requests that Condition No.  
21 7 either be withdrawn or revised to reflect a 54% (AIAC/CAIC)/46% (equity) capital structure.

## 22 VI.

## 23 CONCLUSION

24 Ridgeline hopes that the foregoing Supplement to the Application, together with  
25 Appendices "A," "B" and "C" hereto, will enable the Commission's Staff to revise or  
26 supplement the Staff Report in such a manner, so as to (i) recommend that Ridgeline's  
27 Application for a CC&N be granted, and (ii) withdraw or revise Condition Nos. 6 and 7 in the  
28 manner discussed above.



LAWRENCE V. ROBERTSON, JR.  
ATTORNEY AT LAW  
P.O. Box 1448  
Tubac, Arizona 85646  
(520) 398-0411

1 Dated this 4<sup>th</sup> day of September 2008.

Respectfully submitted,



Lawrence V. Robertson, Jr.  
Attorney for Ridgeline Water Company, L.L.C.

6 The original and thirteen (13) copies of the  
7 foregoing Supplement will be hand-delivered on  
8 the 5<sup>th</sup> of September 2008 to:

9 Docket Control  
10 Arizona Corporation Commission  
11 1200 West Washington  
12 Phoenix, Arizona 85007

13 A copy of the foregoing Supplement  
14 will be emailed or mailed on the 5<sup>th</sup> day  
15 of September 2008 to:

16 Janice Alward, Chief Counsel  
17 Robin Mitchell  
18 Nancy Scott  
19 Legal Division  
20 Arizona Corporation Commission  
21 1200 West Washington Street  
22 Phoenix, Arizona 85007

23 Ernest Johnson, Director  
24 Utilities Division  
25 Arizona Corporation Commission  
26 1200 West Washington Street  
27 Phoenix, Arizona 85007

28 Kiana Sears  
Utilities Division  
Arizona Corporation Commission  
1200 West Washington Street  
Phoenix, Arizona 85007





# **APPENDIX “A”**

Ridgeline Water Company, L.L.C.  
Docket No. W-20589A-08-0173  
Supplement To CC&N Application  
September 4, 2008





**SOUTHWESTERN UTILITY  
MANAGEMENT, INC.**

**WATER UTILITY MANAGEMENT**

**TELEPHONE: (520) 623-5172**

**FAX: (520) 792-0377**

**E-MAIL: SWUMGMT@aol.com**

**MAILING ADDRESS:  
P.O. BOX 85160  
TUCSON, AZ 85754**

**LOCATION:  
2102 N. Forbes Blvd, Suite 107  
TUCSON, AZ 85745**

August 25, 2008

Ridgeline Estates Water Company  
Attn: Mr. Jeff Utsch  
6141 N. Pomona Road  
Tucson, Arizona 85704

Re: Water company management – Ridgeline Estates Water Company

Dear Mr. Utsch,

It was a pleasure speaking with you once again. We at Southwestern Utility Management, Inc. are very much interested in managing your water utility.

As you know, we have extensive experience in managing water utilities across Arizona and believe our reputation will attest to that fact. We have extensive experience in every aspect of operations from being your certified operator, water testing, customer billing, accounts receivable and accounts payable just to name a few. We are a full service management company and we would be happy to supply you with references upon your request.

We have attached a sample contract for your review. As you can see we offer what we call a cafeteria style plan, wherein, clients can pick and choose the extent of their management needs. Please feel free to contact me at any time with any questions or comments and I will answer any concerns you may have.

Thank you for giving Southwestern Utility Management, Inc. the opportunity to possibly serve you and your community.

Regards,

Bonnie O'Connor, President  
Enclosure(s)



# **APPENDIX “B”**

**Ridgeline Water Company, L.L.C.  
Docket No. W-20589A-08-0173  
Supplement To CC&N Application  
September 4, 2008**





**SOUTHWESTERN UTILITY MANAGEMENT, INC.**  
**WATER UTILITY MANAGEMENT**  
**(520) 623-5172**

**MAILING ADDRESS:**  
**P. O. BOX 85160**  
**TUCSON, AZ 85754**

**LOCATION:**  
**2102 N. FORBES BLVD.**  
**SUITES 107**  
**TUCSON, AZ 85745**

**Service Agreement**

- 1.0 Agreement.** This Agreement between Southwestern Utility Management, Inc., an Arizona corporation "Southwestern", and \_\_\_\_\_ "Utility" requires Southwestern to provide to the services described in Attachment "A." In exchange, the Utility will compensate Southwestern as described in Attachment "A."
- 2.0 Term.** This Agreement is for a term of one year. Unless a party notifies the other party in writing that the contract will not be renewed at least 30 days before the expiration date, this Agreement will be renewed for an additional term of one year under the same terms.
- 3.0 Insurance.** Both parties will have, at a minimum, 2,000,000 Aggregate Limit, \$1,000,000 Products and Complete Operations Aggregate, \$1,000,000 Personal & Advertising Injury, \$1,000,000 Each Occurrence – Bodily Injury & Property Damage, \$1,000,000 Non-Owned & Hired Auto Liability, \$100,000 Fire Damage (any one fire), \$5,000 Medical Expense (any one person).
- 4.0 Employees.** Each Party to this Agreement is solely responsible for acts or omissions of its employees, and for paying all salaries, withholding tax deductions, benefits, unemployment compensation, worker's compensation, and all other charges and liabilities arising out of the employer-employee relationship.
- 5.0 Costs.** Unless otherwise indicated in Attachment A, the Utility is responsible for all costs associated with the services provided by Southwestern, including, but not limited to postage, publication, printing, filings, testing, and utility system components. The Utility is responsible for Southwestern's reasonable travel expenses, including mileage at a rate of \$.58 per mile. This mileage cost may be adjusted without specific notice to the Utility, or an addendum to this Agreement, to adjust with and be the same as the federal mileage allowance. Please Initial: \_\_\_\_\_
- 6.0 Indemnification.** The Utility agrees to indemnify and hold harmless Southwestern (including its members, agents, officers, employees, and volunteers) from and against all claims, injuries, damages, losses, and expenses (including attorney fees and court costs) arising from acts or omissions of Southwestern (including those of its agents, employees, or volunteers, or any tier of its contractors) in the performance of this Agreement unless such liability arose due to negligent and or intentional misconduct by Southwestern. The insurance coverage requirements of this Agreement do not limit the scope of indemnification.
- 7.0 Termination.** This Agreement may be terminated by mutual consent of the Parties, provided the termination is in writing. Unless the Parties agree to a specific termination date, termination by mutual consent will be effective 30 days after both Parties have given their consent. In the event of default by either Party, the non-breaching Party may terminate this Agreement 10 business days after providing written notice to the breaching Party unless that Party cures the default during that time.
- 8.0 Legal Remedies for Breach of Contract.** Arizona law applies to this Agreement. The Parties agree that any action to enforce the provisions of this Agreement must be brought in the Superior Court in and for Pima County, Arizona. The prevailing Party will be entitled to recover its reasonable attorneys' fees and costs in any future dispute or action arising under this Agreement. Utility agrees that Southwestern will not be liable for any exemplary, special, indirect, consequential, or incidental damages.
- 9.0 Interpretation.** The Parties acknowledge and agree that each has been given the opportunity to independently review this Agreement with legal counsel, and that this Agreement is the result of negotiations between the Parties. The Parties agree that any ambiguous or disputed terms of this Agreement are not to subject to any rule of interpretation providing for the interpretation against the drafting Party.



Southwestern Utility Management, Inc.  
Operators Service Agreement (continued)

Utility Company-  
Address -  
City, State Zip -

**10.0 Not Partners.** This Agreement and its related activities do not establish the Parties as partners for any purpose.

**11.0 Severability.** If the Court holds that any term or provision of this Agreement is illegal, the validity or enforceability of the remainder of this Agreement will not be affected.

**12.0 Notice.** Unless expressly stated otherwise, notices under this Agreement must be in writing and hand-delivered or sent by certified United States mail, postage prepaid, to the following addresses: (Please fill in below)

Address - \_\_\_\_\_  
City, State Zip - \_\_\_\_\_

The Parties may change their address for receipt of notices at any time with notice to the other Party.

**13.0 Entire Agreement.** This Agreement and the exhibits attached and incorporated hereto constitute the entire understanding of the Parties and supersedes any previous agreement or understandings on the subjects discussed herein.

IN WITNESS HEREOF, this Agreement is executed by the Parties and made effective on: \_\_\_\_\_, 2008 .

Southwestern Utility Management, Inc.

Utility Company:

By: \_\_\_\_\_

By: \_\_\_\_\_

Bonnie L. O'Connor

Its: Vice President

Date: \_\_\_\_\_

Its: \_\_\_\_\_

Date: \_\_\_\_\_



# **APPENDIX “C”**

**Ridgeline Water Company, L.L.C.  
Docket No. W-20589A-08-0173  
Supplement To CC&N Application  
September 4, 2008**



JAMES D DOROUGH, OP022771

has complied with the requirements for operator certification in the State of Arizona pursuant to Arizona Revised Statutes, Title 49, Chapter 2, Articles 9 and 10, and Arizona Administrative Code, Title 18, Chapter 5, Article I. Therefore, the State Department of Environmental issues

Certificate

14237

22802

22803

Grade 1

Grade 2

Grade 1 Water Pollution Control Operator

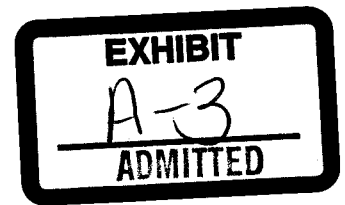
Exp.

5/31/2010

5/31/2010

5/31/2010





# **Exhibit A-3**

(ACC Certificate of Good Standing)

Ridgeline Water Company, L.L.C.  
Docket No. W-20589A-08-0173





# **Exhibit A-4**

**(Requests for Water Service from Pollux  
Properties, L.L.C.)**

**Ridgeline Water Company, L.L.C.  
Docket No. W-20589A-08-0173**



EXHIBIT

A-4

January 4, 2008

Ridgeline Water Company, L.L.C.  
655 N. Alvernon Way, Suite 114  
Tucson, Arizona 85711

Attention: Jeffrey S. Utsch  
General Manager

Re: Request For Water Service

Dear Mr. Utsch:

Pollux Properties, L.L.C. ("Pollux") hereby formally requests that Ridgeline Water Company, L.L.C. ("Ridgeline") undertake such actions as may be necessary to enable Ridgeline to become the lawful provider of water service to and within approximately 673 acres of land which Pollux owns in an unincorporated in the southernmost portion of Pima County. Attached to this letter as Appendix "A" are legal descriptions of the acreage in question ("Subject Property").

As currently contemplated, Pollux intends to facilitate the development of 134-144 single-family residential units within the Subject Property. Enclosed with this letter as Appendix "B" is a December 2007 draft Water System Master Plan ("Plan"), prepared by Carlson Engineering, Inc., which identifies the water system facilities that would be needed in order to satisfy the anticipated demands of the Subject Property for water service. As you will note, the Plan analysis includes a discussion of the demand criteria and design criteria utilized in arriving at the conclusions reached as to the needed water system infrastructure.

Please advise us in writing if Ridgeline is interested in becoming the lawfully authorized provider of water service to the Subject Property. In that regard, you may use this request for water service in connection with any approvals Ridgeline must obtain from regulatory or permitting agencies or entities.

Sincerely,

POLLUX PROPERTIES, L.L.C.

By:

  
Glen Kerslake



February 1, 2007

Pollux Properties, L.L.C.  
655 N. Alvernon Way, Suite 114  
Tucson, Arizona 85711

Attention: Glen Kerslake

Re: Request For Water Service

Dear Mr. Kerslake:

This letter will acknowledge Ridgeline Water Company, L.L.C.'s ("Ridgeline") receipt of your January 1, 2008 letter requesting that Ridgeline undertake such actions as may be necessary to enable Ridgeline to become the lawful provider of water service to the 673 acres of land located in the southernmost portion of Pima County, Arizona which Pollux Properties, L.L.C. ("Pollux") owns and contemplates developing ("Subject Property").

Ridgeline is interested in becoming the lawfully authorized provider of water service to the Subject Property, and is willing and able to do so, subject to prior receipt of the necessary approvals and authorizations from governmental entities with jurisdiction over Ridgeline's water provider operations. These will include the receipt of the necessary certificate of convenience and necessity from the Arizona Corporation Commission ("ACC"), and ACC approval of such line extension agreements and off-site facilities agreements as Ridgeline may find to be necessary or appropriate.

In that regard, as a condition to Ridgeline's willingness to proceed with such actions as may be necessary to obtain the requisite approvals and authorizations, Ridgeline will require that Pollux fund any expenses Ridgeline may incur in connection with such efforts.

If the foregoing condition is acceptable to Pollux, please so advise me in writing and Ridgeline will promptly undertake to obtain the approvals and authorizations necessary to enable it to be the lawful water provider to the Subject Property.

Sincerely,

Ridgeline Water Company, L.L.C.

By:   
Jeffrey S. Utsch, General Manager



March 15, 2008

Ridgeline Water Company, L.L.C.  
655 N. Alvermon Way, Suite 114  
Tucson, Arizona 85711

Attention: Jeffrey S. Utsch  
General Manager

Re: Request For Water Service

Dear Mr. Utsch:

The condition outlined in your letter of February 1, 2008 is acceptable to Pollux Properties, L.L.C. ("Pollux"). Accordingly, please proceed with all actions necessary to enable Ridgeline Water Company, L.L.C. ("Ridgeline") to become the lawful water provider to the 673 acres owned by Pollux and described in my January 4, 2008 letter to you.

In that regard, please provide me with a copy of all documents filed with such governmental entities from whom the necessary approvals or authorizations are requested by Ridgeline; and, please provide me with periodic statements of fees and costs incurred by Ridgeline in connection with its efforts on our behalf, in order that Pollux may either directly pay the same or reimburse Ridgeline.

Sincerely,

Pollux Properties, L.L.C.

By:

  
Glen Kerslake



EXHIBIT

A-5

ADMITTED

# **Exhibit A-5**

(Legal Description for Proposed CC&N  
Area)

Ridgeline Water Company, L.L.C.  
Docket No. W-20589A-08-0173



SCHEDULE B - Section 2 - Exceptions, Continued



Escrow No.: 06144822-JCS  
Order No.: PJBjv1  
Amended: January 8, 2007 No. 2

EXHIBIT

A-5

Dear LandAmerica Customer:

The Financial Services Modernization Act recently enacted by Congress has brought many changes to the financial services industry, which includes insurance companies and their agents. One of the changes is that we are now required to explain to our customers the ways in which we collect and use customer information.

The statement attached to or on the reverse side of this letter is the privacy policy of the LandAmerica family of companies. The three largest members of the family – Commonwealth Land Title Insurance Company, Lawyers Title Insurance Corporation, and Transnation Title Insurance Company – may issue policies and handle real estate closings in virtually every part of the country. A number of other companies in the family provide other real estate services, and some operate more locally. You may review a list of LandAmerica companies on our website ([www.landam.com](http://www.landam.com)). You may also visit our website for an explanation of our privacy practices relating to electronic communication.

Our concern with the protection of your information has been a part of our business since 1876, when the company that is now Commonwealth Land Title Insurance Company issued its first policy. We will continue to protect the privacy, accuracy, and security of customer information given to us.

No response to this notice is required, but if you have questions, please write to us:

LandAmerica Privacy  
P.O. Box 27567  
Richmond, VA 23261-7567.

LandAmerica Companies

Title Insurance Companies: Commonwealth Land Title Insurance Company, Commonwealth Land Title Insurance Company of New Jersey, Industrial Valley Title Insurance Company, Land Title Insurance Company, Lawyers Title Insurance Corporation, Title Insurance Company of America, Transnation Title Insurance Company, Transnation Title Insurance Company of New York

Relocation and Mortgages: Commonwealth Relocation Services, CRS Financial Services, Inc., LandAmerica Account Servicing, Inc.

Title Agents: Austin Title Company, ATACO, Inc., Albuquerque Title Company, Atlantic Title & Abstract Company, Brighton Title Services Company, Capitol City Title Services, Inc., CFS Title Insurance Agency, Charleston Title Agency, Charter Title Company of Fort Bend, Galveston, and Sugarland; Commercial Settlements, Inc., Commonwealth Land Title Company; Commonwealth Land Title Company of Austin, Dallas, Fort Worth, Houston, Washington, Congress Abstract Corp., Cornerstone Residential Title, Cumberland Title Company, First Title & Escrow, Inc., Gulf Atlantic, Harbour Title, HL Title Agency, Lawyers Title Company; Lawyers Title of Arizona, El Paso, Galveston, Nevada, Pueblo, San Antonio, Lawyers Title Settlement Company, Lion Abstract, Longworth Insured, Louisville Title Agency of Central Ohio, Lorain County Title Company, M/I Title Agency, NIA/Lawyers Title Agency, Oregon Title, Park Title, Partners Title Company, Pikes Peak Title Services, RE/Affirm Title Agency, Rainier Title Company, Residential Abstract, Residential Title, Rio Rancho Title, Texas Title Company, Title Transfer Service, Inc., TransOhio Residential Title Agency, Transnation Title & Escrow, Union Title Agency, University Title Services, Wilson Title Company

Appraisals and Ancillary Services: LandAmerica OneStop, Inc.



**SCHEDULE B - Section 2 - Exceptions, Continued**

**Escrow No.:** 06144822-JCS  
**Order No.:** PJB\jv1  
**Amended:** January 8, 2007 No. 2

**LANDAMERICA PRIVACY POLICY**

*What kinds of information we collect.* Most of LandAmerica's business is title insurance, but there are companies in our family that provide other real estate services to consumers. We collect information about you, (for instance, your name, address, telephone number), and information about your transaction, including the identity of the real property that you are buying or financing. We obtain a copy of any deeds, notes, or mortgages that are involved in the transaction. We may get this information from you or from the lender, attorney, or real estate broker that you have chosen. Our title insurance companies then obtain information from the public records about the property so that we can prepare a title insurance policy. When we provide closing, escrow, or settlement services, mortgage lending, or mortgage loan servicing, we may get your social security number, and we may receive additional information from third parties including appraisals, credit reports, land surveys, escrow account balances, and sometimes bank account numbers to facilitate the transaction. If you are concerned about the information we have collected, please write to us.

*How we use this information.* The company giving or specifically adopting this notice does not share your information with marketers outside its own family. There's no need to tell us to keep your information to ourselves because we share your information only to provide the service requested by your or your lender, or in other ways permitted by law. The privacy laws permit some sharing without your approval. We may share internally and with nonaffiliated third parties in order to carry out and service your transaction, to protect against fraud or unauthorized transactions, for institutional risk control, and to provide information to government and law enforcement agencies. Companies within a family may share certain information among themselves in order to identify and market their own products that they think may be useful to you. Credit information about you is shared only to facilitate your transaction or for some other purpose permitted by law.

*How we protect your information.* We restrict access to nonpublic personal information about you to those employees who need the information to provide products or services to you. We maintain physical, electronic, and procedural safeguards that comply with law to guard your nonpublic personal information. We reinforce the company's privacy policy with our employees.

*Agents that may be covered by this policy.* Often, your transaction goes through a title insurance agent. Agents that are part of the LandAmerica family are covered by this policy. **Agents that are not part of the LandAmerica family may specifically, in writing, adopt our policy statement.**



**Exhibit A**

**Legal Description**

**Parcel 1:**

**The Northwest quarter of the Southeast quarter of Section 18, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona.**

**EXCEPT all coal and other minerals as reserved in Patent from United States of America.**

**JV arb 7**

**Parcel 2:**

**The Northeast quarter of the Southwest quarter of Section 18, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona**

**EXCEPT all coal and other minerals as reserved in Patent from United States of America.**

**JV arb 2**

**Parcel 3:**

**The Southwest quarter of the Southeast quarter of Section 18, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona.**

**EXCEPT all coal and other minerals as reserved in Patent from United States of America.**

**JV arb 9**

**Parcel 4:**

**The Northwest quarter of the Southeast quarter of Section 19, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona.**

**EXCEPT all coal and other minerals as reserved in Patent from United States of America.**

**JV arb 10**

**Parcel 5:**

**A portion of Government Lot 4 in Section 19, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona, described as follows:**

**BEGINNING at the Southwesterly corner of said Lot 4, which is monumented by a set ½ inch rebar tagged "RLS 35111";**

**THENCE North 00 degrees 03 minutes 21 seconds West, upon the Westerly line of said Lot 4, a distance of 58.48 feet;**

**THENCE South 88 degrees 41 minutes 16 seconds East, a distance of 206.46 feet;**



**THENCE North 81 degrees 11 minutes 10 seconds East, a distance of 278.20 feet;**

**THENCE North 61 degrees 47 minutes 14 seconds East, a distance of 388.51 feet;**

**THENCE North 57 degrees 52 minutes 05 seconds East, a distance of 585.08 feet to the Easterly line of said Lot 4;**

**THENCE South 00 degrees 03 minutes 10 seconds East, upon said Easterly line, a distance of 590.64 feet to the Southeasterly corner thereof;**

**THENCE South 89 degrees 58 minutes 29 seconds West, upon the Southerly line of said Lot 4, a distance of 1,320.49 feet to the POINT OF BEGINNING.**

**EXCEPT all coal and other minerals as reserved in Patent from United States of America.**

**JV arb 43**

**Parcel 6:**

**The South half of the Southeast quarter of the Northwest quarter of Section 19, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona.**

**EXCEPT all coal and other minerals as reserved in Patent from United States of America.**

**JV arb 25**

**Parcel 7:**

**The South half of the Northeast quarter of the Southwest quarter of Section 19, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona.**

**EXCEPT all coal and other minerals as reserved in Patent from United States of America.**

**JV arb 34**

**Parcel 8:**

**The East half of the North half of the Northeast quarter of the Southwest quarter of Section 19, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona.**

**EXCEPT all coal and other minerals as reserved in Patent from United States of America.**

**JV arb 36**

**Parcel 8A:**

**An easement for ingress, egress, and utilities over, under, and across the North half of the Northeast quarter of the Southwest quarter of Section 19, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona, said easement being 30 feet in width, the centerline of which extends from the mid point of the North line of the North half of the Northeast quarter of the Southwest quarter of Section 19, Township 19 South, Range 14 East, Southerly to the mid point of the North line of the South half**



of the Northeast quarter of the Southwest quarter of Section 19, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona.

**Parcel 9:**

The South half of the Northeast quarter of the Southeast quarter of Section 19, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona.

EXCEPT coal and other minerals as reserved in the Patent from United States of America.

JV arb 29

**Parcel 9A:**

A right-of-way for ingress and egress and an easement for poles, wires, pipes, and conduits for lighting, heating, electricity, gas, telephone, and any other public or quasi-public utility service purposes, on, over, and under the North 30 feet of the South half of the Southeast quarter of Section 19, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona.

**Parcel 10:**

The North half of the Northeast quarter of the Southeast quarter of Section 19, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona.

EXCEPT all coal and other minerals as reserved in Patent from United States of America.

TOGETHER WITH a right-of-way and easement over the West 20 feet of the South half of the Northeast quarter of the Southeast quarter of Section 19, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona.

JV arb 18

**Parcel 11:**

The West one-half of the Southeast quarter of the Southeast quarter of Section 19, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona.

EXCEPT all coal and other minerals as reserved in Patent from United States of America.

JV arb 19



**Parcel 12:**

The North half of the Southwest quarter of the Southeast quarter of Section 19, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona.

EXCEPT all coal and other minerals as reserved in Patent from United States of America.

JV arb 33

**Parcel 13:**

The Southwest quarter of the Southwest quarter of the Southeast quarter of Section 19, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona.

EXCEPT all coal and other minerals as reserved in Patent from United States of America.

JV arb 30

**Parcel 14:**

The Southeast quarter of the Southwest quarter of the Southeast quarter of Section 19, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona.

EXCEPT all coal and other minerals as reserved in Patent from United States of America.

JV arb 32

**Parcel 15:**

A portion of Government Lot 3 in Section 19, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona, described as follows:

The South 160.00 feet of Government Lot 3 in Section 19, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona.

EXCEPT all coal and other minerals as reserved in Patent from United States of America.

JV arb 45

**Parcel 16:**

The Southwest quarter of the Southwest quarter of Section 20, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona.

EXCEPT all coal and other minerals as reserved in Patent from United States of America.

JV arb 6

**Parcel 17:**

A portion of the Northwest quarter of the Southwest quarter of Section 20, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona, described as follows:



**The West 330.00 feet of the Northwest quarter of the Southwest quarter of Section 20, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona.**

**EXCEPT all coal and other minerals as reserved in Patent from United States of America.**

**Portion of JV arb 5**

**Parcel 18:**

**The South half of the Northeast quarter of Section 29, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona.**

**EXCEPT all coal and other minerals as reserved in Patent from United States of America.**

**JV arbs 4 and 6**

**Parcel 19:**

**The West half of the Northeast quarter of the Northwest quarter of Section 29, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona.**

**EXCEPT all coal and other minerals as reserved in Patent from United States of America.**

**JV arb 30**

**Parcel 20:**

**The East half of the Northeast quarter of the Northwest quarter of Section 29, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona.**

**EXCEPT all coal and other minerals as reserved in Patent from United States of America.**

**JV arb 31**

**Parcel 21:**

**The West half of the Northwest quarter of the Northwest quarter of Section 29, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona.**

**EXCEPT all coal and other minerals as reserved in Patent from United States of America.**

**JV arb 29**

**Parcel 22:**

**The Southwest quarter of the Northeast quarter of the Northeast quarter of Section 30, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona.**

**EXCEPT all coal and other minerals as reserved in Patent from United States of America.**

**JV arb 15**



**Parcel 23:**

**The South 660 feet of the East 330 feet thereof, of the Northeast quarter of the Northeast quarter of Section 30, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona.**

**EXCEPT all coal and other minerals as reserved in Patent from United States of America.**

**JV arb 24**

**Parcel 24:**

**The Northeast quarter of the Northeast quarter of Section 30, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona.**

**EXCEPT the South 660 feet of the East 330 feet thereof.**

**FURTHER EXCEPT the Southwest quarter thereof.**

**FURTHER EXCEPT all coal and other minerals as reserved in Patent from United States of America.**



**Parcel 28:**

**The North half of the Southeast Quarter of the Northwest Quarter of Section 29, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona.**

**EXCEPT all coal and other minerals, as reserved in Patent from United States of America**

**(Jv arb 15)**

**(State Tax Parcel: 304-45-007D)**

**Parcel 29**

**The West half of the Northwest Quarter of the Northeast Quarter of Section 19, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona.**

**Parcel 30:**

**A portion of Government Lot 4 of Section 19, Township 19 South, Range 14 East, Gila and Salt River Meridian, Pima County, Arizona, described as follows:**

**COMMENCING at the Southwesterly corner of said Lot 4, which is monumented by a set ½ inch rebar tagged "RLS 35111";**

**THENCE North 00 degrees 03 minutes 21 seconds West, upon the Westerly line of said Lot 4, 58.48 feet to the POINT OF BEGINNING;**

**THENCE continue North 00 degrees 03 minutes 21 seconds West, upon said Westerly line, 1259.24 feet to the Northwesterly corner of said Lot 4;**

**THENCE North 89 degrees 57 minutes 32 seconds East, upon the Northerly line of said Lot 4, 1319.69 feet to the Northeasterly corner thereof;**

**THENCE South 00 degrees 03 minutes 10 seconds East, upon the Easterly line of said Lot 4, 727.44 feet;**

**THENCE South 57 degrees 52 minutes 05 seconds West, 585.08 feet;**

**THENCE South 61 degrees 47 minutes 14 seconds West, 388.51 feet;**

**THENCE South 81 degrees 11 minutes 10 seconds West, 278.20 feet;**

**THENCE North 88 degrees 41 minutes 16 seconds West, 206.46 feet to the POINT OF BEGINNING.**



**EXCEPT all coal and other minerals, as reserved in Patent from United States of America.**

**(JV Arb. 44)**

**Parcel 31:**

**The Southeast Quarter of the Northwest Quarter of the Northwest Quarter of Section 29 Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona.**

**EXCEPT all coal and other minerals, as reserved in Patent from United States of America.**

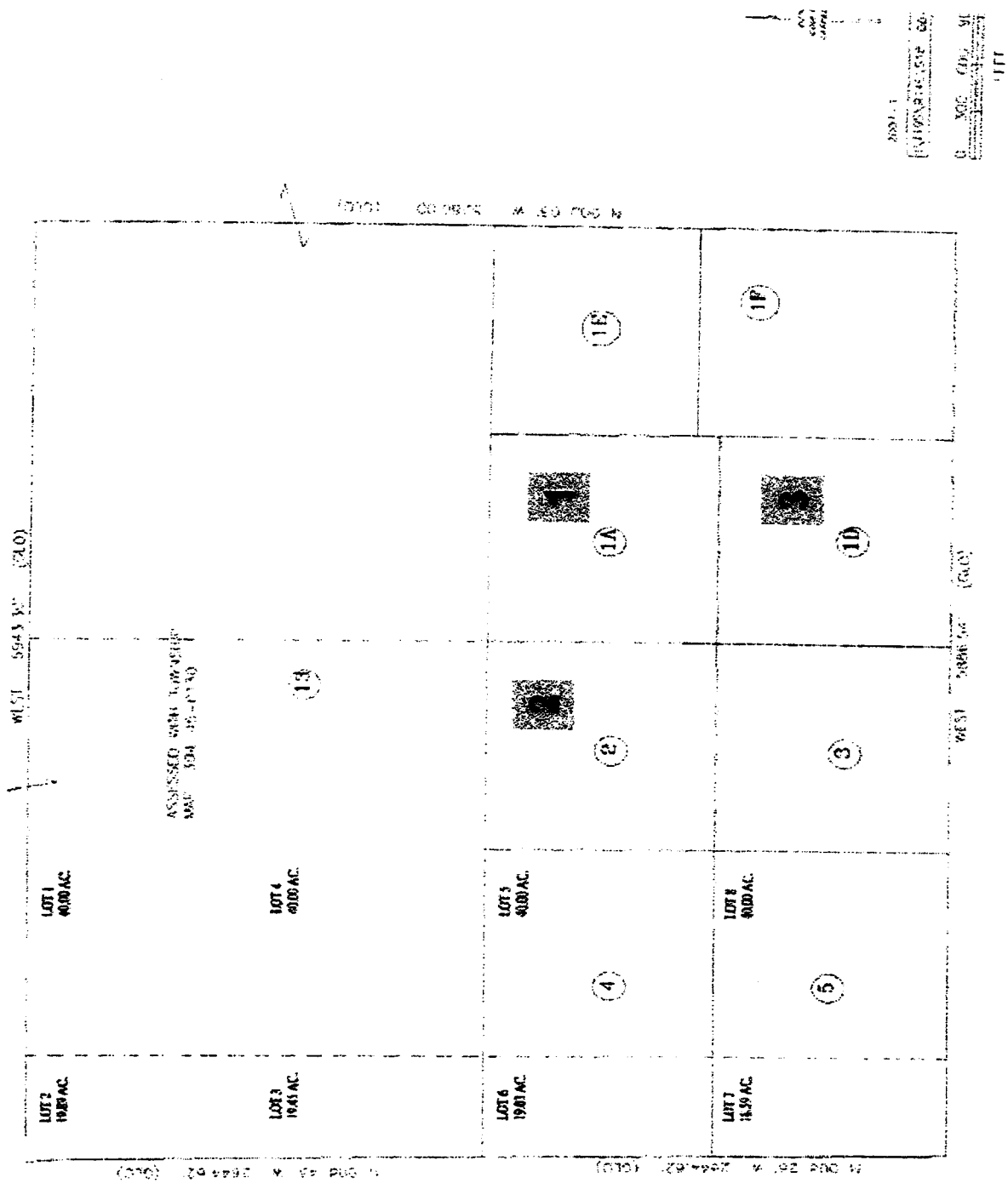
**(Jv arb 14)**

**(State Tax Parcel: 304-45-009D)**



## SECTION 18, TOWNSHIP 19 SOUTH, RANGE 14 EAST

304-405

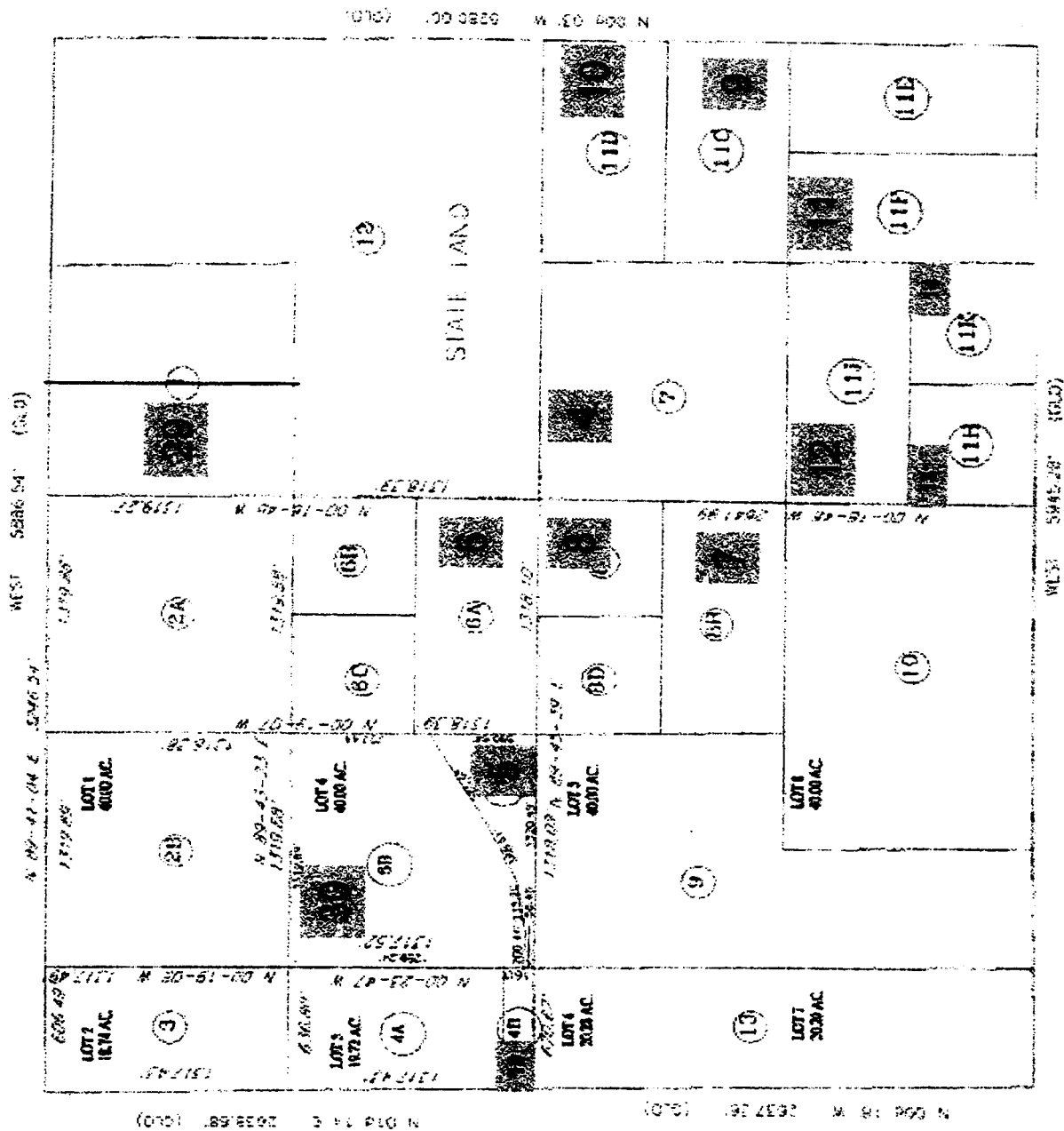




ASSESSOR'S RECORD MAP

304 48

SECTION 19, TOWNSHIP 19 SOUTH, RANGE 14 EAST

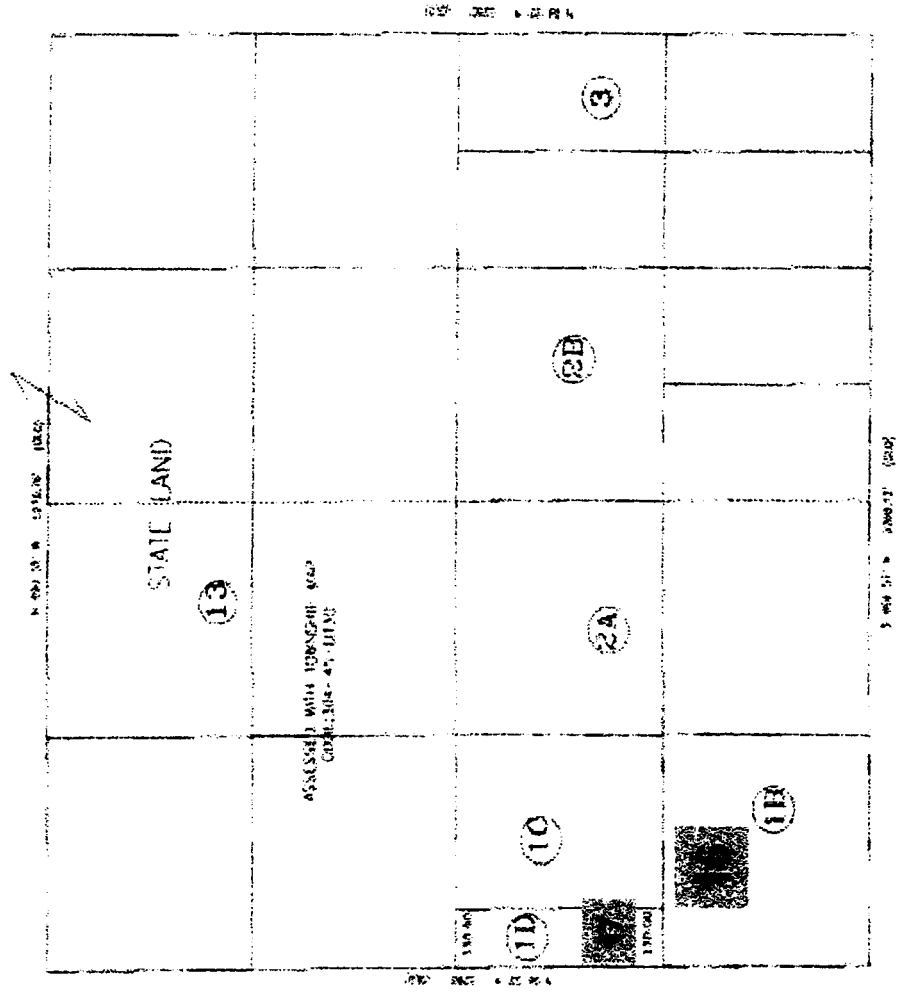




# ASSESSOR'S RECORD MAP

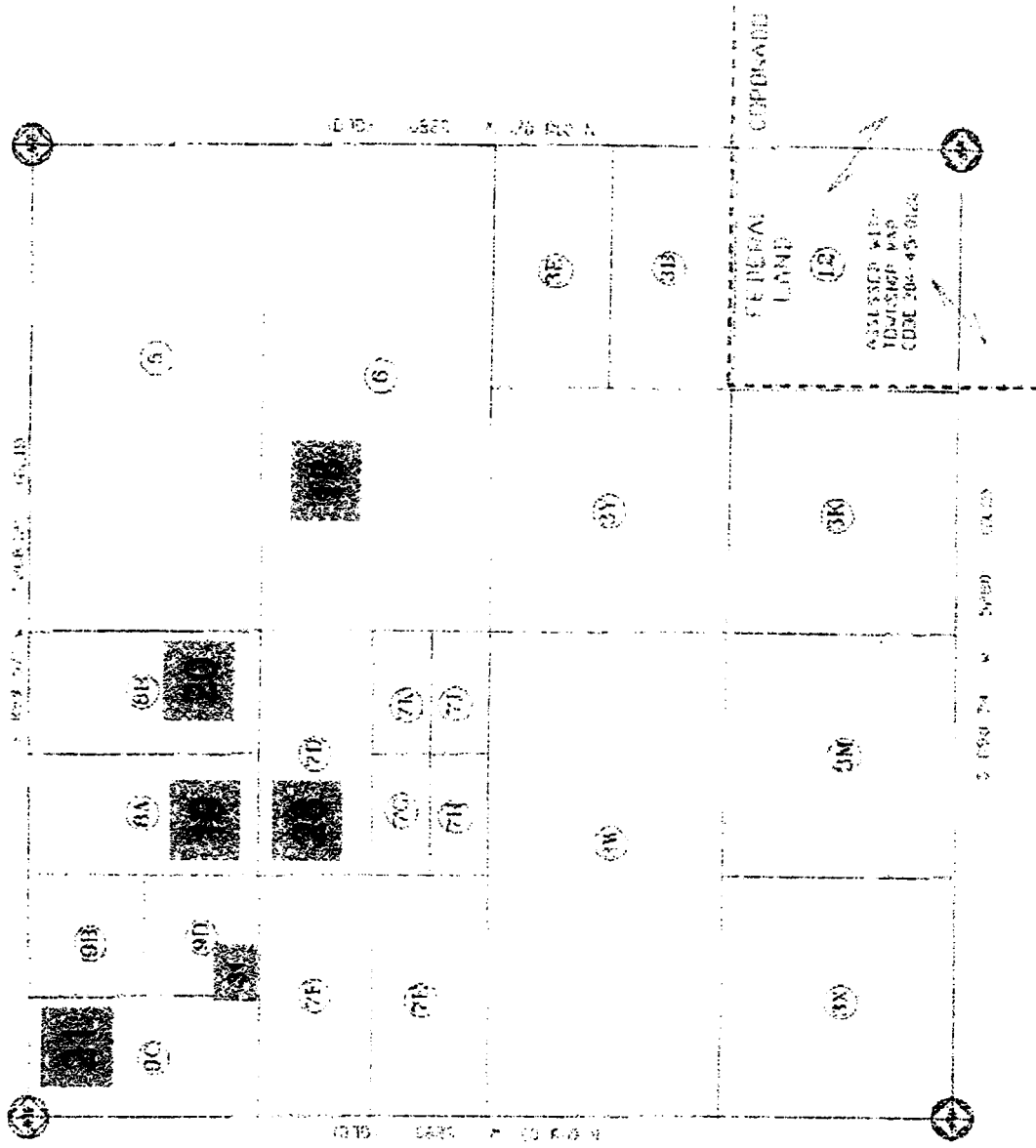
304-49

SECTION 20, TOWNSHIP 19 SOUTH, RANGE 14 EAST





# ASSESSOR'S RECORD MAP SECTION 29, TOWNSHIP 19 SOUTH, RANGE 14 EAST

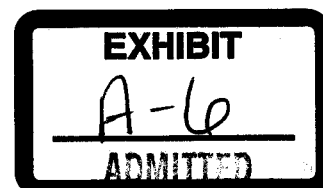




SECTION 30, TOWNSHIP 19 SOUTH, RANGE 14 EAST

ALL INFORMATION CONTAINED  
HEREIN IS UNCLASSIFIED  
DATE 06-09-2008 BY  
SP-10 JED/STP/01/KOON/4047





# **Exhibit A-6**

(Map of Proposed CC&N Area)

Ridgeline Water Company, L.L.C.  
Docket No. W-20589A-08-0173



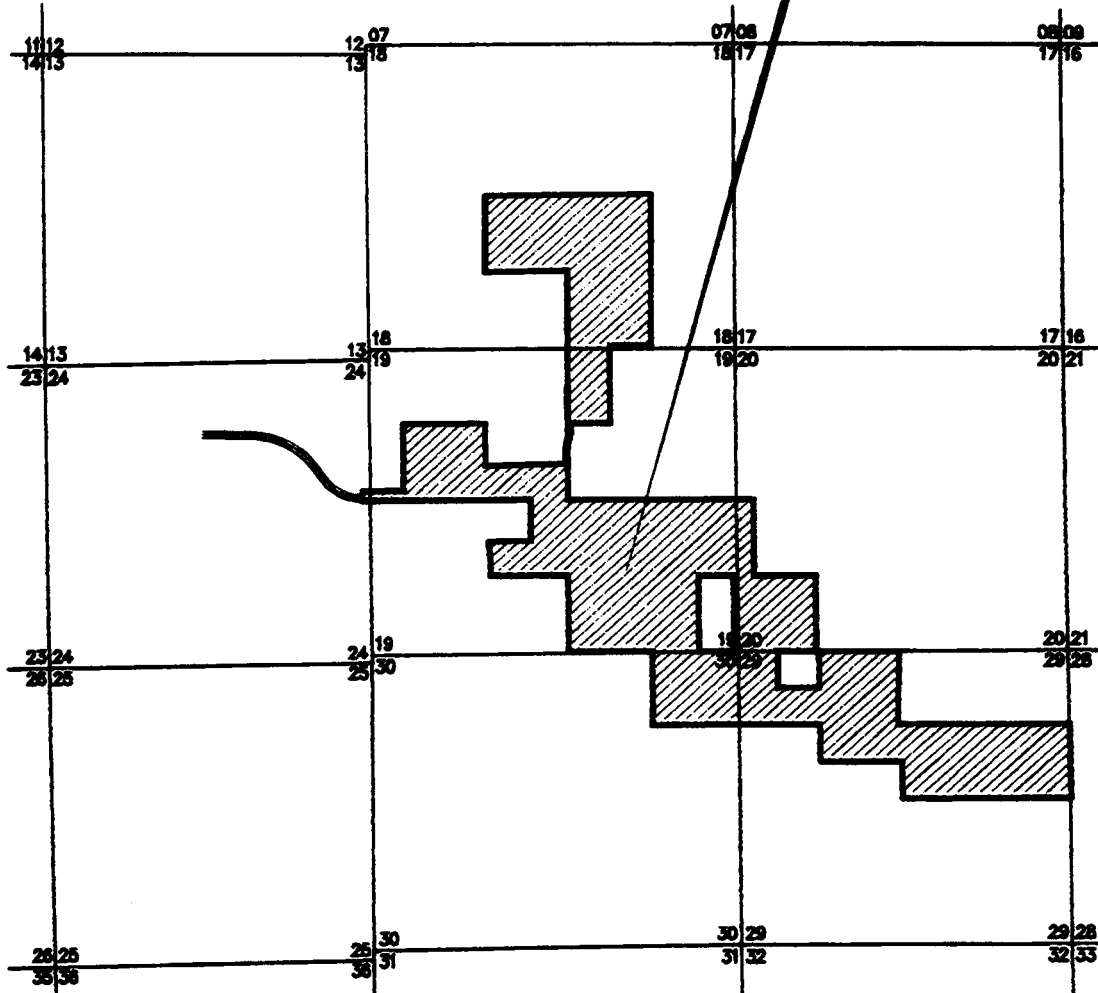


SCALE: 1"=3,000'

EXHIBIT

A-6

THIS PROJECT



PREPARED BY:



GREG CARLSON ENGINEERING, L.L.C.

1521 E. Broadway Boulevard, Tucson, AZ 85719

(520) 624-0070 (520) 624-4197 Fax E-mail: greg@gregeng.biz

DESIGNED BY: GRC

DRAFTED BY: JJ

CHECKED BY: GRC

RIDGELINE ESTATES

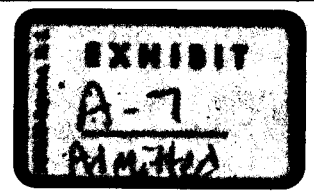
LOCATED WITHIN A PORTION OF  
SECTIONS 18-20, 29 & 30, T19S, R14E,  
G&SRM PIMA CO., ARIZONA

SCALES: HORIZ: 1"=3,000'

JOB NO. 07-036

DATE: MARCH 2008





# **Exhibit A-7**

(December 2007 Water System Master  
Plan)

Ridgeline Water Company, L.L.C.  
Docket No. W-20589A-08-0173





LEGEND

- PRESSURE ZONE SERVICE ELEVATION LIMITS (40-55 PSIG)
- 4" DISTRIBUTION MAIN
- 6" DISTRIBUTION MAIN
- 8" DISTRIBUTION MAIN
- 12" DISTRIBUTION MAIN
- 8" TRANSMISSION MAIN AND FACILITY PIPING
- 4" DUCTILE IRON PIPE
- TANK
- PUMP
- PRESSURE REGULATING VALVE
- CHECK VALVE
- MODEL JUNCTION

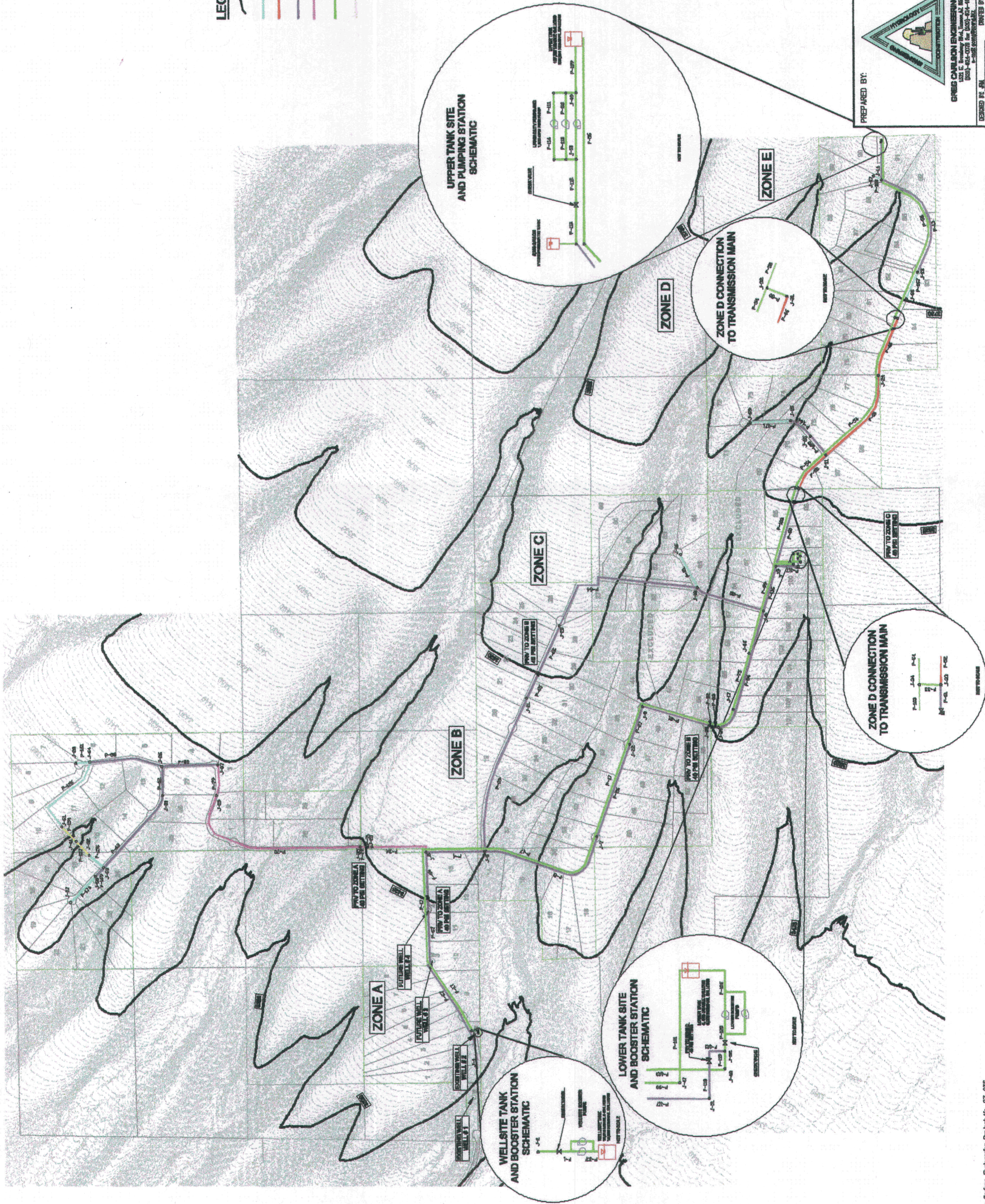


FIGURE 2  
WATER DISTRIBUTION SYSTEM MODEL  
FOR  
RIDGEVIEW ESTATES  
LOCATED WITHIN A PORTION OF SECTIONS 18-20,  
29 & 30, T19S, R44E GASSEL, PINA COUNTY, AZ

PREPARED BY:

DATE: 07-03-08

SCALE: 1"=500'

REF: N/A

DATE: 07-03-08

DESIGNED BY: JF

DRAWN BY: JF

CHECKED BY: JF

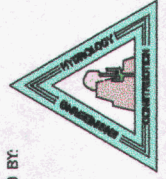




SCALE 1"=500'

LEGEND

	PRESSURE ZONE SERVICE ELEVATION LIMITS (0-65 PSI)
	4" DISTRIBUTION MAIN
	6" DISTRIBUTION MAIN
	8" DISTRIBUTION MAIN
	12" DISTRIBUTION MAIN
	8" TRANSMISSION MAIN AND FACILITY PIPING
	4" DUCTILE IRON PIPE
	TANK
	PUMP
	PRESSURE REGULATING VALVE
	CHECK VALVE
	MODEL JUNCTION



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FIGURE 3  
WATER DISTRIBUTION SYSTEM MODEL  
INTERIM CONDITION MAP  
FOR  
RIDGELINE ESTATES  
LOCATED WITHIN A PORTION OF SECTIONS 19-20,  
29 & 30, T19S, R44E G68RM, PIMA COUNTY, AZ

DATE: 11-2007 REF: ---  
SCALE: N/A JOB NO: 07-036  
DESIGNED BY: GCE CHECKED BY: GCE  
DRAWN BY: JF DATE: 11/20/07



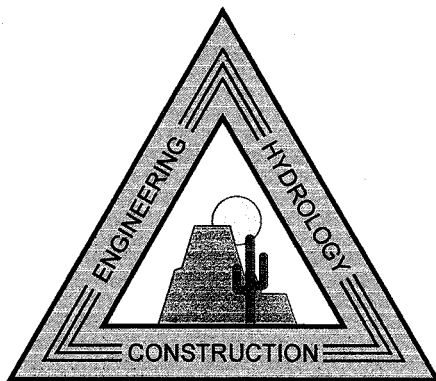


**DESIGN REPORT**  
for  
**RIDGELINE ESTATES**  
**WATER DISTRIBUTION SYSTEM**

Prepared for:

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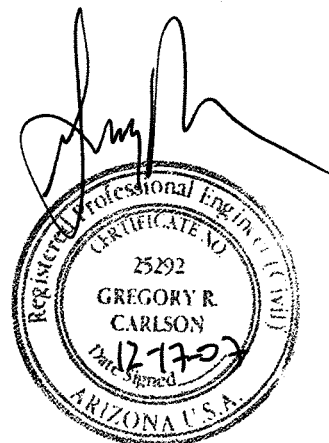
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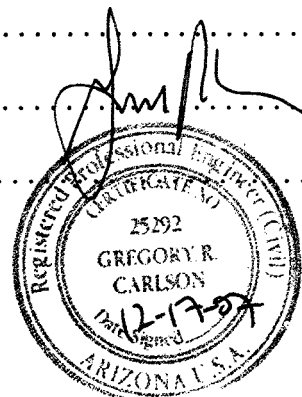
December, 2007  
Job Number 07-036





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Appendix C	Model Results
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## 1.0 INTRODUCTION

### 1.1 Location and Description

This project is located in portions of Sections 18-20, 29 and 30, Township 29 South, Range 14 East, Gila and Salt River Meridian, Pima County, Arizona. The 632-acre site is bounded on the west by vacant land, on the north by vacant land and White House Canyon Road, on the east by Madera Canyon Road, and on the south by Madera Canyon. The subject parcel is described by the associated tax I.D. numbers of the participating parcels shown in Table 1. The location of the project is depicted in Figure 1 Appendix A.

**Table 1:**  
*Participating Parcels Tax I.D. Numbers*

<b>Parcel I.D. Number</b>	<b>Owner</b>
304-48-004B	Pollux Properties, LLC
304-48-005A	Pollux Properties, LLC
304-48-005B	Pollux Properties, LLC
304-48-006A	Pollux Properties, LLC
304-48-008C	Pollux Properties, LLC
304-48-008B	Pollux Properties, LLC
304-48-0070	Pollux Properties, LLC
304-48-011J	Pollux Properties, LLC
304-48-011H	Pollux Properties, LLC
304-48-011K	Pollux Properties, LLC
304-48-011F	Pollux Properties, LLC
304-48-011C	Pollux Properties, LLC
304-48-011D	Pollux Properties, LLC
304-49-001D	Pollux Properties, LLC
304-49-001B	Pollux Properties, LLC
304-50-001B	Pollux Properties, LLC
304-50-001D	Pollux Properties, LLC
304-50-001C	Pollux Properties, LLC
304-45-009C	Pollux Properties, LLC
304-45-008B	Pollux Properties, LLC
304-45-008A	Pollux Properties, LLC
304-45-007D	Pollux Properties, LLC
304-45-009D	Pollux Properties, LLC
304-45-0060	Pollux Properties, LLC
304-48-005B	Pollux Properties, LLC
304-48-001B	Pollux Properties, LLC
304-47-001D	Pollux Properties, LLC
304-47-001A	Pollux Properties, LLC
304-47-0020	Pollux Properties, LLC



The existing condition for the project site is undeveloped land currently zoned as RH. The proposed development for the site consists of a 136 unit single family detached residential subdivision with a minimum lot area of 180,000 square feet.

Two groundwater supply/test wells currently exist at the northwest corner of the proposed development. No system piping, storage or appurtenances currently exist.

The location of this proposed subdivision and associated water system falls outside of the jurisdiction of any of the neighboring fire districts.

## **1.2 Purpose and Objectives**

The objective of this design report is to demonstrate that the proposed water distribution system will satisfy the minimum design standards as required by the Arizona Administrative Code (AAC) Title 18, Chapter 5, Article 5 and contained in Engineering Bulletin No. 10 issued by the Arizona Department of Health Services, May 1978. The system shall also comply with the requirements of the 2003 International Fire Code.

## **1.3 Previous Studies**

A groundwater study was performed by Chuck M Dickens for the site. He provided a letter in May 2007 (attached in Appendix D) summarizing the test results for two supply / test wells. In addition, an application for assured water supply has been submitted to AZDWR. No other known studies exist for this site.



## 2.0 DESIGN REQUIREMENTS

### 2.1 Minimum Fire Flow

The proposed system will be outside of the service area of the neighboring fire districts and therefore, falls under the jurisdiction of the state fire marshal. The design fire flow capacity of the subdivision is in accordance with the 2003 International Fire Code, which requires a minimum fire flow capability of 1,000 gpm for 2 hours for homes not exceeding 3,600 square feet. Any homes in this development planned to exceed 3,600 square feet will be required to have a sprinkler system installed.

### 2.2 System Pressures

In accordance with the requirements of AAC R18-5-502, the proposed system must maintain a minimum pressure of 20 psi under all flow conditions and 40 psi under normal operating conditions. Individual pressure reducing valves (PRVs) will be required for service connections that tap into locations with 80 psi or greater. The following design criteria were used for system design:

<u>Flow Condition</u>	<u>Minimum System Pressure</u>
Average Day Demand (ADD)	40 psi
Maximum Day Demand (MDD)	40 psi
Peak Hour Demand (PHD)	35 psi
MDD Plus Concurrent Fire Flow	20 psi

### 2.3 Velocity and Headloss

The design guidelines of the City of Tucson Water Department were used to limit pipeline velocities and headloss gradients as shown on Table 2:

**Table 2:**  
*Pipeline Performance Criteria*

<b>Flow Condition</b>	<b>Maximum Velocity</b>	<b>Maximum Headloss Gradient</b>
MDD	5 ft/sec	10 ft/1,000 ft
MDD with Fire Flow (1,000 gpm)	8 ft/sec where extension of pipeline is possible. 11 ft/sec where no extensions are possible	N/A

Guidelines from City of Tucson Water Department Design Standard 8-06.4.3



## 2.4 Demand Criteria

The following assumptions were used to determine the system demand:

<u>Factor</u>	<u>Value</u>
Average Daily Demand per Capita per Day (gpcd)	100 gpcd
Average Persons Per Household	3
Peak Month Demand (PMD) Peaking Factor	1.5
MDD Peaking Factor	1.8
PHD Peaking Factor	3.15
Total Number of Lots	136

The total system ADD equates to approximately 28.3 gpm based on the above criteria. The maximum required demand is 1,051 gpm for the flow condition of MDD plus concurrent fire flow.

## 2.5 Storage Requirements

The AAC requires that new distribution systems provide storage for one day at peak month demand. A second component is required for fire flow storage per Engineering Bulletin No 10 Chapter 6-D. An average day of peak month demand (61,200 gallons) plus the fire flow storage equates to a total storage requirement of 181,200 gallons.

## 2.6 Well Production

The production wells must be capable of supplying a minimum of 50 gpcd for a period of 100 years per the requirements documented in AAC R18-4-603. The ground water study performed by Chuck M. Dickens revealed that the aquifer has capacity to serve approximately 600 single-family units. The two existing wells will have capacity to serve approximately 350 single-family units.



### 3.0 **PROPOSED SYSTEM**

#### 3.1 **System Configuration**

The proposed system will be divided into five pressure zones, each of which will receive the water stored in the elevated storage tank at the east end of the development named the Upper Tank. Table 3 below summarizes the service and high water elevations for each pressure zone.

**Table 3:**  
*Pressure Zones*

<b>Pressure Zone</b>	<b>Low Service Elevation (Static Pressure)</b>	<b>High Service Elevation (Static Pressure)</b>	<b>High Water Elevation</b>	<b>Range of Service Elevations (ft)</b>
Zone A	3320 (85 psi)	3425 (40 psi)	3517	105
Zone B	3425 (81 psi)	3520 (40 psi)	3612	95
Zone C	3520 (85 psi)	3625 (40 psi)	3717	105
Zone D	3625 (85 psi)	3730 (40 psi)	3822	105
Zone E	3730 (85 psi)	3835 (40 psi)	3927	105

The following summarizes the pressure zone characteristics:

##### *Zone A*

Pressure Zone A will be the lowest pressure zone. The service elevations for the zone will be from 3320 to 3425 feet. The zone will receive water from the higher pressure zones through pressure reducing valves (PRVs). In the proposed configuration, two hydraulically independent service areas will be within Zone A. Their high water elevations will be equivalent and set by the pressure settings of the PRVs serving them from Zone B. In the future, these two service areas can be looped together by direct connection if the land between them is added to the water company service area.

##### *Zone B*

Pressure Zone B will serve elevations 3425 thru 3520. It will receive water by gravity from Zone C through PRVs.

##### *Zone C*

Pressure Zone C will serve elevations 3520 thru 3625. It will receive water by gravity from Zone D through a PRV in the distribution piping. It will also have a PRV connection from the 8-inch transmission main. The PRV will be located at the Lower Tank site and set low to open only under high flow conditions or during maintenance of the PRV from Zone D.



*Zone D*

Pressure Zone D will serve elevations 3625 thru 3730. The water surface elevation in the Upper Tank will be the high water elevation for this zone. Zone D will receive water by gravity from the Upper Tank through two connections to the 8-inch transmission main. It will also receive water from the Lower Tank site booster as it supplies the Upper Tank.

*Zone E*

Pressure Zone E will serve elevations 3730 thru 3835. Since the high water surface elevation in the Upper Tank will be 3822, Zone E will not be sufficiently pressurized by gravity. Instead, it will be pressurized by pumps and a hydro-pneumatic tank at the Upper Tank site. It will also require a stand-by fire pump to ensure fire flow availability.

### 3.2 Storage Capacity

In addition to the Upper Tank, which will provide storage for the entire system, two other tanks will be installed to act as forebay storage along the 8-inch transmission main between the Upper Tank and the wells. The wells will pump into the Wellsite Tank (named after its proximity to the existing wells). A booster station at that site will then pump water to the Lower Tank. Boosters at the Lower Tank site will then boost water to the Upper Tank. The following table summarizes the storage characteristics of the Ridgeline Estates Water Distribution System:

**Table 4:**  
*System Water Storage*

Facility	Zones Served	Diameter (ft)	Height (ft)	Area (sf)	Required Storage (gal)	Usable Volume* (gal)
Upper	ALL	47.53	16.12	1774	181,200	187,397
Lower	(Forebay)	9.23	12	67	3,400	5,005
Wellsite	(Forebay)	15.39	12	186	12,240	13,915

\*Usable Volume deducts 2' from total tank height for overflow pipe and elevated discharge pipe.

The Upper Tank will have enough volume to provide storage for a 2-hour, 1,000 gpm fire flow plus a full day of peak month demand for the entire system. In the event of a power failure, Zones A, B, C and D will have available water pressure and fire flow until the Upper Tank is emptied. If no fire event occurs, the Upper Tank will have enough supply for approximately 3 days without power.



The storage requirements for the two forebay tanks were determined based on the volume required to refill the Upper Tank after its water level drops to the pump-on level. Current plans are for the Upper Tank level to drop approximately 1.6 feet two times daily. The tank will refill each time over a period of approximately 68 minutes. The Wellsite Tank will have enough volume to prevent complete drainage during refill periods in the event that the greatest producing well is out-of-service. The Lower Tank will have enough volume to prevent drainage based on the precaution that the Wellsite booster cannot keep up with the Lower booster in flow production.

### **3.3 Boosters, Pumps and Wells**

The booster pumps at the Wellsite Tank site and the Lower Tank site will be sized to provide sufficient flow to refill the Upper Tank over the course of approximately 72 minutes after the water level has dropped 1.6 feet. This will occur approximately two times per day. It is also desirable, in this system, to size the two booster stations such that the flow rate delivered from each is roughly equal. This will prevent the Lower Tank from emptying due to a negative net inflow under high flow conditions. Each booster station will have two identical alternating pumps.

The pumps at the Upper Tank site will be sized to pressurize the system to the high water elevation of Zone E (3,927'). Two service pumps will alternate in pressurizing a hydro-pneumatic tank for the domestic service of Zone E. The fire pump will be sized to provide a minimum 1,000 gpm at a pumping head equal to the high water elevation for Zone E. The fire pump will only turn on if a fire event occurs within Zone E.

It is recommended that the wells run at the same time and are not connected in an alternating fashion. Their combined capacity will be approximately 400 gpm.

### **3.4 Water Hammer**

Water hammer, otherwise known as pressure surges or transients, can be caused by power failures, quickly closed valves, or any other event that causes a sudden change of flow in the system. The Tucson Water design standards require a surge allowance of 40% of the normal operating pressures. The Ridgeline Estates water system experiences a peak critical operating pressure of 111 psi. Adding the 40% surge allowance renders a minimum pipe rating of 155 psi. Tucson Water design standards require all pipelines to have a minimum rating of 200 psi. It is recommended that the 200 psi standard be followed for the design of the proposed Ridgeline Estates water system.



The hydro-pneumatic tank at the Upper Tank site will provide protection against positive and negative pressure surges in Zone E by allowing water to enter the system under negative surges and allowing water to enter the tank during positive surges.

Protection devices will be installed along the transmission main to protect the pumps and mitigate the effects of surges and air accumulations. The greatest surge that can be caused in the transmission main would be due to a pump trip at one of the booster stations. Since the greatest static pressure in the transmission main is 113 psi at the Wellsite Tank, and the pumps are producing a maximum of approximately 350 gpm, the surge will not cause the pressure to exceed the capacity of class 200 pipe. However, spring loaded check valves will be installed downstream of the booster stations to prevent surges from damaging the pumps.



## **4.0 MODEL CONSTRUCTION**

### **4.1 Modeling Software**

A model of the proposed system was created using Bentley's WaterCad V8 XM edition. The software has the ability to perform both steady state and extended period simulations. It can also perform a fire flow analysis in which the capacity of the system is calculated while maintaining certain performance criterion such as minimum system pressures and maximum flow velocities.

### **4.2 Model Creation**

A topographic map and the proposed lot layout were imported into the water system model using the AutoCad features of the Bentley Software. The water system was modeled by placing model nodes and pipes in their proper locations over the base mapping. Nodes and appurtenances were assigned elevations at ground level to produce results representing ground level pressures. Tanks and pumps were assigned elevations representing their intended design elevations to accurately determine the high water elevations and hydraulic grade lines.

### **4.3 Model Scenarios**

A total of six models were created. The complete proposed system was modeled for the average daily demand (ADD), maximum daily demand (MDD) and peak hour demand (PHD). The first three models were named the Final Condition Scenarios. The model configuration for the final condition is shown on Figure 2. Three other scenarios were also modeled including the piping and facilities for only the interim condition. This includes construction of the transmission main, Upper Tank, and two booster stations as well as distribution piping for the lower pressure zones as shown on Figure 3. These model scenarios were named the Interim Condition Scenarios.

### **4.4 Demand Allocation**

Once the pipes and system components were created within the WaterCad software each model junction, or node, was assigned a demand (representing ADD) based on the number of proposed lots that were nearest to that particular node. Therefore, some of the nodes have no demand associated with them while others have demands representing anywhere from 1 to 11 lots. The ADD was then multiplied by the appropriate peaking factors for the MDD and PHD scenarios.



#### 4.5 Model Parameters

The Hazen Williams roughness coefficient for all PVC pipes in the model were set to 120 to conservatively estimate the fire flow capacity of the system for aged piping. In the Interim Condition Scenarios, the roughness was set at 150 to model new PVC piping.

A local minor loss coefficient of 6.2 was applied to all of the PRVs. This coefficient was provided by the manufacturer's (Cla-Val) representative and is also available on their website. Each PRV in the system will be a 6-inch PRV.

Tank diameters and nominal volumes were provided by BH Tank Incorporated per the sizes and specifications listed on their website. The actual usable volume of the tanks, assuming two feet of unusable depth, was considered in storage calculations.



## **5.0 MODEL RESULTS**

### **5.1 Operating Pressures**

As described in the pressure zone descriptions, the majority of the distribution system will be served by gravity from the Upper Tank through a series of pressure reducing valves (PRVs). Pressure Zone E is the only zone that will require a pump to pressurize it. Since PRVs will separate the pressure zones, the operating pressures depend on their locations and settings. The PRVs will be set so that the target range of pressures within each zone range between 40 psi and 85 psi.

There will be some areas in the distribution system that experience higher pressures than the 40-85 psi range mentioned above. They include loops crossing through lower pressure zones and lowered waterlines crossing under washes. The locations of the loops and wash crossings can be seen on Figures 4 thru 7. No service connections are anticipated in the aforementioned high-pressure areas. Individual PRVs will be required for any service connections made at locations expected to have pressures exceeding 80 psi. A limited number of lots could potentially encounter localized pressures exceeding 80 psi.

Results of the fire flow analysis indicate that a fire flow of 1,000 gpm at any location will not drop the pressure below 20 psi anywhere in the system.

### **5.2 Fire Flow Capacity**

A fire flow analysis was run for both the Interim Condition MDD scenario and the Final Condition MDD scenario. The analysis calculated the available fire flow capacity (during MDD flow conditions) at each model node based on the criteria that the minimum system and residual pressures remain at least 20 psi. Certain model nodes were excluded from the minimum pressure criteria and were also not tested for fire flow capacity because they represent non-service or facility locations or locations where no hydrant would be located such as in a cul-de-sac less than 500-feet from a hydrant.

No locations failed the fire flow analysis. All hydrants will be capable of producing a minimum of 1,000 gpm. An extended period simulation also showed that the Upper Tank will have the volume to provide 1,000 gpm for 2 hrs plus a full day's peak month demand in the event that it can not receive supply from the transmission main. Figures 8 and 9 summarize the fire flow results.



### 5.3 Pipeline Performance

The flow velocities and headloss gradients were analyzed for both the Interim Condition and Final Condition of the system. Model results indicate that the proposed system satisfies the City of Tucson Water Department Design Standards listed in Section 2.3. The maximum velocity for the Interim Condition MDD and Final Condition MDD scenarios were 0.20 ft/sec and 6.59 ft/sec respectively. The maximum velocities were 0.30 ft/sec and 7.49 ft/sec for the Final Condition MDD and MDD plus Fire Flow scenarios respectively. The maximum headloss gradients for the Interim and Final Conditions MDD scenarios were 0.030 ft/1,000 ft and 0.073 ft/1,000 ft. Figures 10 thru 13 summarize the pipeline performance.



## 6.0 SUMMARY AND CONCLUSIONS

It is anticipated that the water distribution system will be constructed in phases. It is also understood that it is desirable to the developer that the transmission main and all tanks be installed as part of the first phase of construction. This is recommended. Also, we recommend the following:

### **Phase 1: Install the following system components:**

- 1) All tanks,
- 2) The entire length of transmission main,
- 3) Booster pumps at Wellsite and Lower Tanks,
- 4) The PRV at the Lower Tank site. Interim setting shall be equal to Zone C high water elevation,
- 5) The 8-inch distribution main between Lot 1 and the Lower Tank site following the alignment of the transmission main in the main access road,
- 6) The PRVs separating Zones A, B and C,
- 7) Connect the wells to the Wellsite Tank.

### **Phase 2: Install further distribution piping and service meters per the following:**

- 1) Complete construction of water mains within Zones A, B, and C,
- 2) Install services within Zones A and B; all lots.
- 3) Install services within Zone C for lots downstream of the Lower Tank site PRV.

### **Phase 3: Install Zone D:**

- 1) Install Zone D distribution mains and connections to the transmission main.
- 2) Install PRV to Zone C. Reset the PRV at the Lower Tank site to 40 psi at this point.
- 3) Install services for rest of Zone C lots.
- 4) Install services for all Zone D lots.

### **Phase 4: Install Zone E:**

- 1) Install hydro-pneumatic tank, pumps and fire pump at the Upper Tank site.
- 2) Install Zone E distribution mains.

Other construction phasing strategies are possible. Any significant variations to the plan should be modeled before implementation.



The proposed water system has the capability to be expanded to serve future service areas following completion of the proposed Ridgeline Estates system. Since fire flow is the controlling factor for the design of the system, connections will be possible prior to completion but should be analyzed when development details are known. It is recommended that future system additions follow the same pressure zone elevation boundaries in order to facilitate the looping of mains between built and new service areas.

Service connections made at the low end of their pressure zones will require pressure-reducing valves at the meters. Any connection made at locations with operating pressures in excess of 80 psi will be required to have a PRV. The following table summarizes the areas that will be affected.

**Table 5:**  
*Required PRV Connections*

<b>Pressure Zone</b>	<b>Threshold Elevation (Connections lower than this require PRVs)</b>
Zone A	3332
Zone B	3427
Zone C	3532
Zone D	3637
Zone E	3742

The proposed system will perform adequately both as a completed system and under interim conditions. The model results indicate that there will be sufficient fire flow capacity and pressure at all locations in the system under the applicable flow conditions to satisfy the requirements of the 2003 International Fire Code. The design requirements of AAC Title 18, Chapter 5, Article 5 and contained in ADEQ Engineering Bulletin No. 10 have been satisfied by the proposed design as well.



## 7.0 REFERENCES

Arizona Department of Environmental Quality, Engineering Bulletin No. 10, May 1978.  
[www.azdeq.gov/](http://www.azdeq.gov/)

Arizona Administrative Code, Title 18 Chapters 4 and 5, [www.azsos.gov/](http://www.azsos.gov/)

City of Tucson Water Department, Design Standard No 8-06 Water Facility Minimum Sizing and Reliability Standards

City of Tucson Water Department, Design Standard No 8-08 Water Pipeline Design Standards

PVC Pipe Specifications: Harvel Plastics Inc., [www.harvel.com](http://www.harvel.com)

Pressure Reducing Valve Specifications: Cla-Val, [www.cla-val.com](http://www.cla-val.com)

Storage Tank Sizes and Specifications: BH Tank, [www.bhtank.com](http://www.bhtank.com)

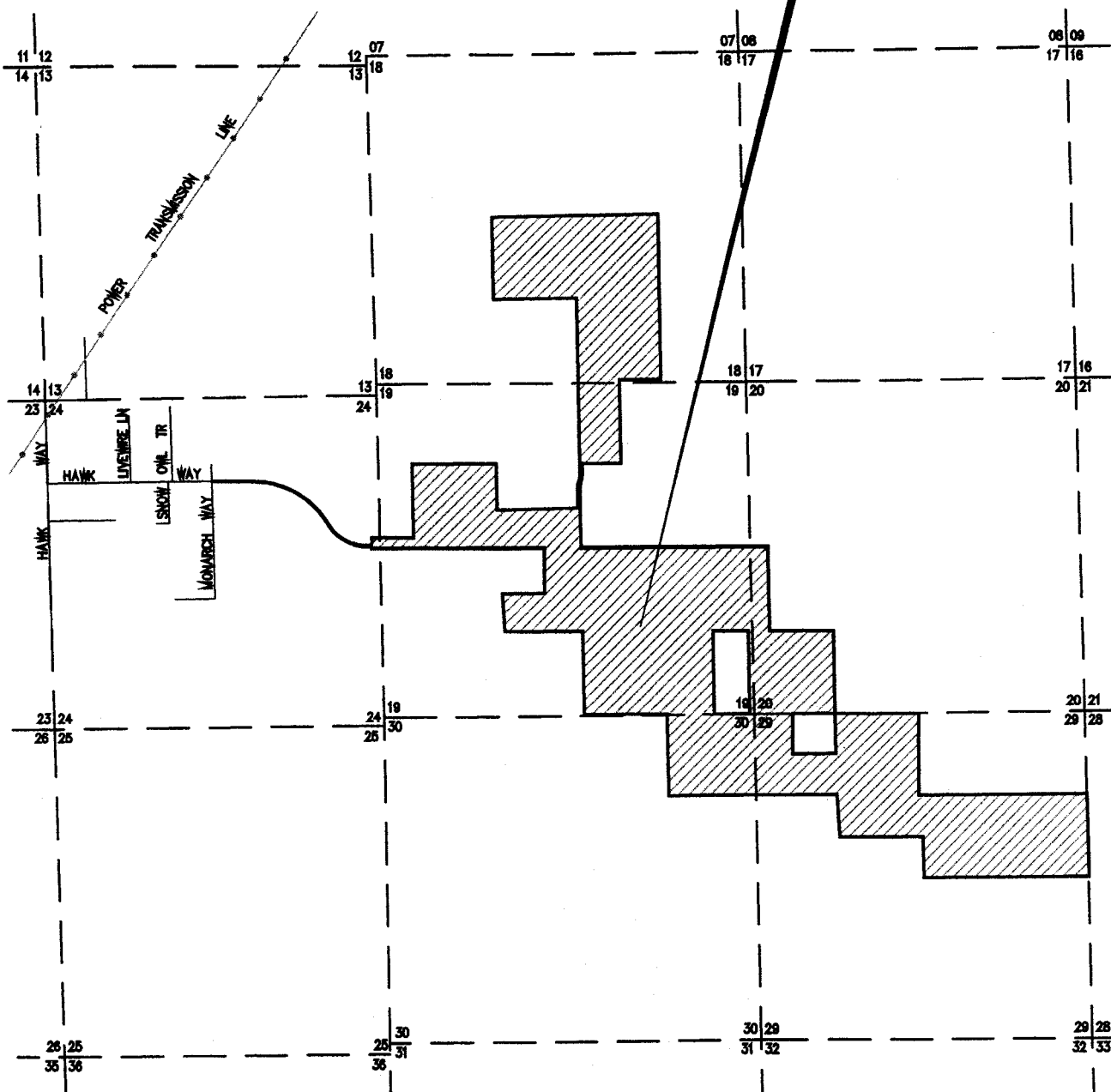


**Appendix A**  
**Maps and Figures**





SCALE: 2"=1 MILE



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DESIGNED BY: GRC DRAFTED BY: JF CHECKED BY: GRC

FIGURE 1:  
PROJECT LOCATION MAP  
FOR

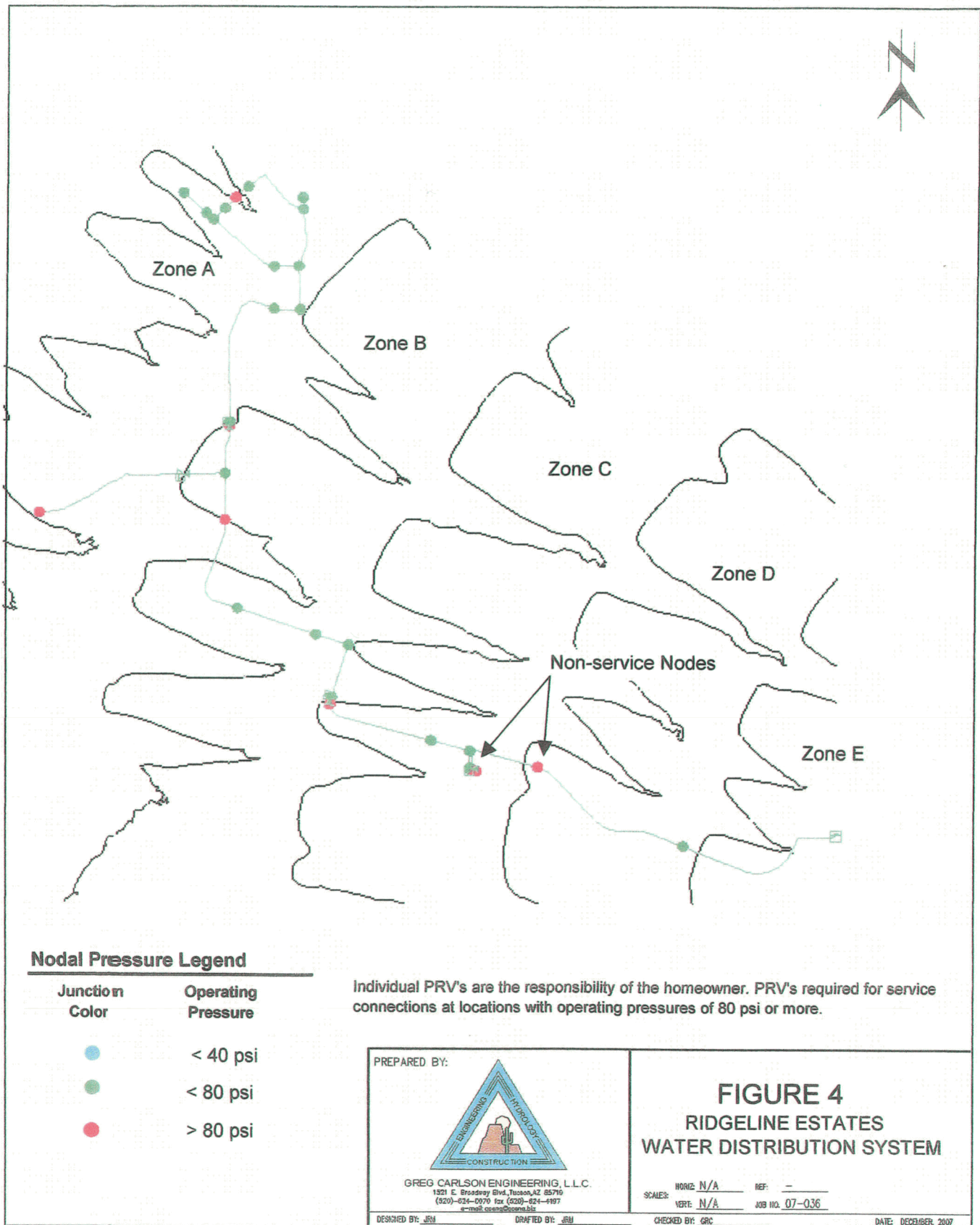
RIDGELINE ESTATES  
LOCATED WITHIN A PORTION OF  
SECTIONS 18-20, 29 & 30, T19S, R14E,  
G&SRM PIMA CO., ARIZONA

SCALES: HORIZ: 3"=1 mi JOB NO. 07-036

DATE: DECEMBER, 2007

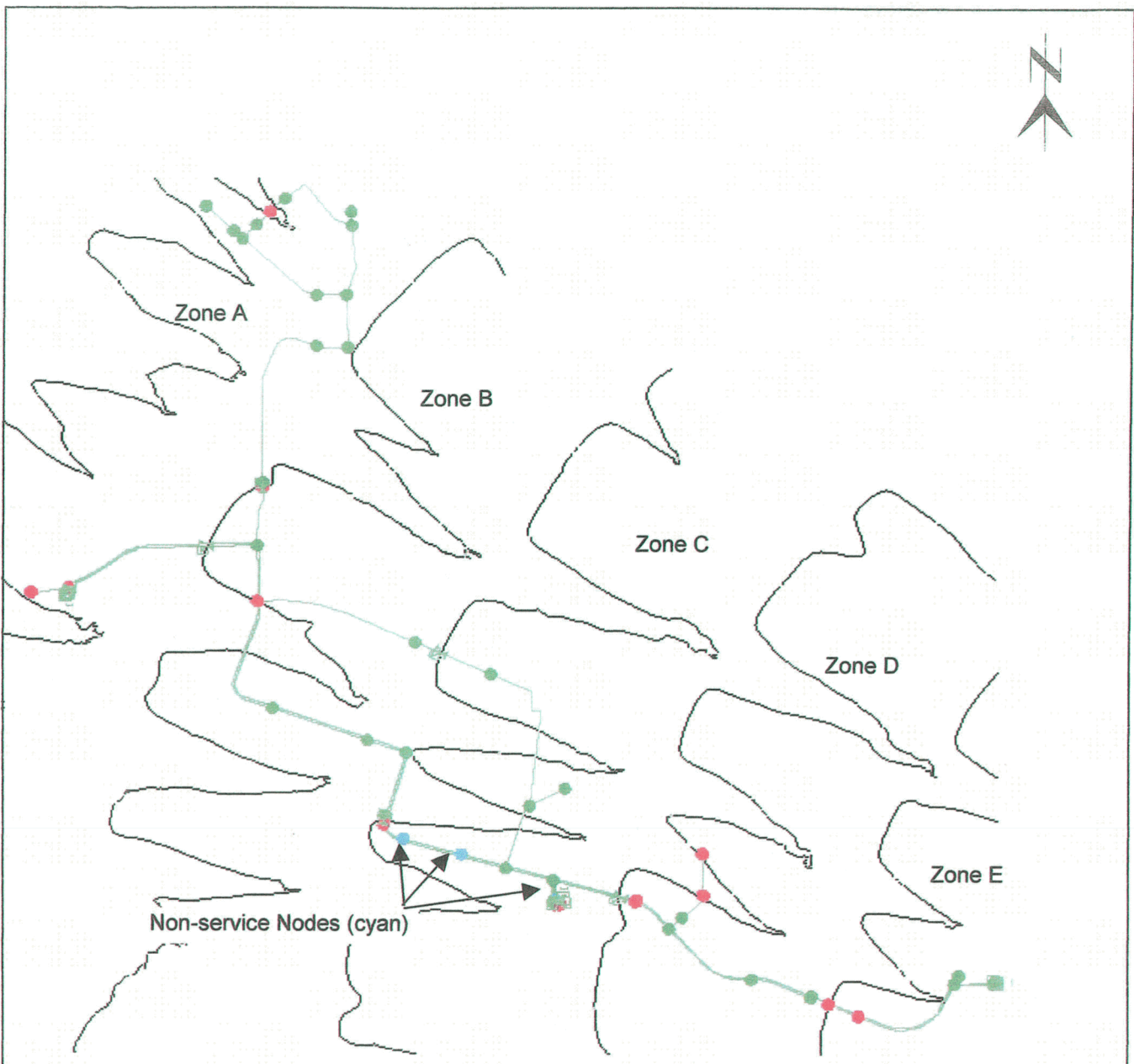


**Ridgeline Estates Water Distribution System Model Results**  
**Nodal Pressure Analysis**  
**Scenario: Interim Condition (MDD)**





**Ridgeline Estates Water Distribution System Model Results**  
**Nodal Pressure Analysis**  
**Scenario: Final Condition (MDD)**

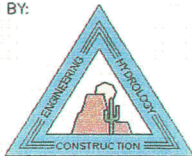


**Nodal Pressure Legend**

Junction Color	Operating Pressure
<span style="color: blue;">●</span>	< 40 psi
<span style="color: green;">●</span>	< 80 psi
<span style="color: red;">●</span>	> 80 psi

Individual PRV's are the responsibility of the homeowner. PRV's required for service connections at locations with operating pressures of 80 psi or more.

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**FIGURE 5**  
**RIDGELINE ESTATES**  
**WATER DISTRIBUTION SYSTEM**

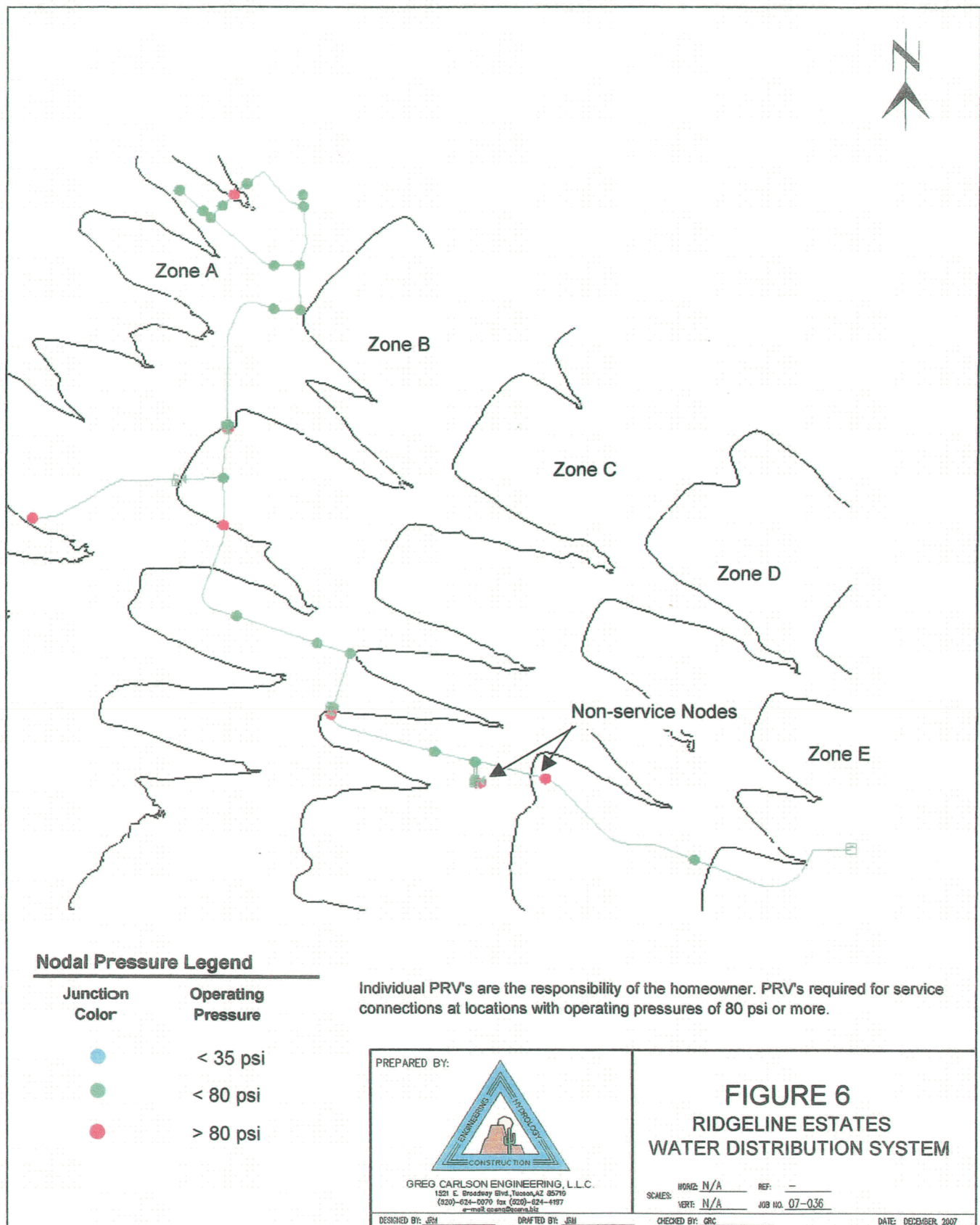
HORIZ: N/A REF: -  
 VERT: N/A JOB NO. 07-036

CHECKED BY: GRC

DATE: DECEMBER 2007

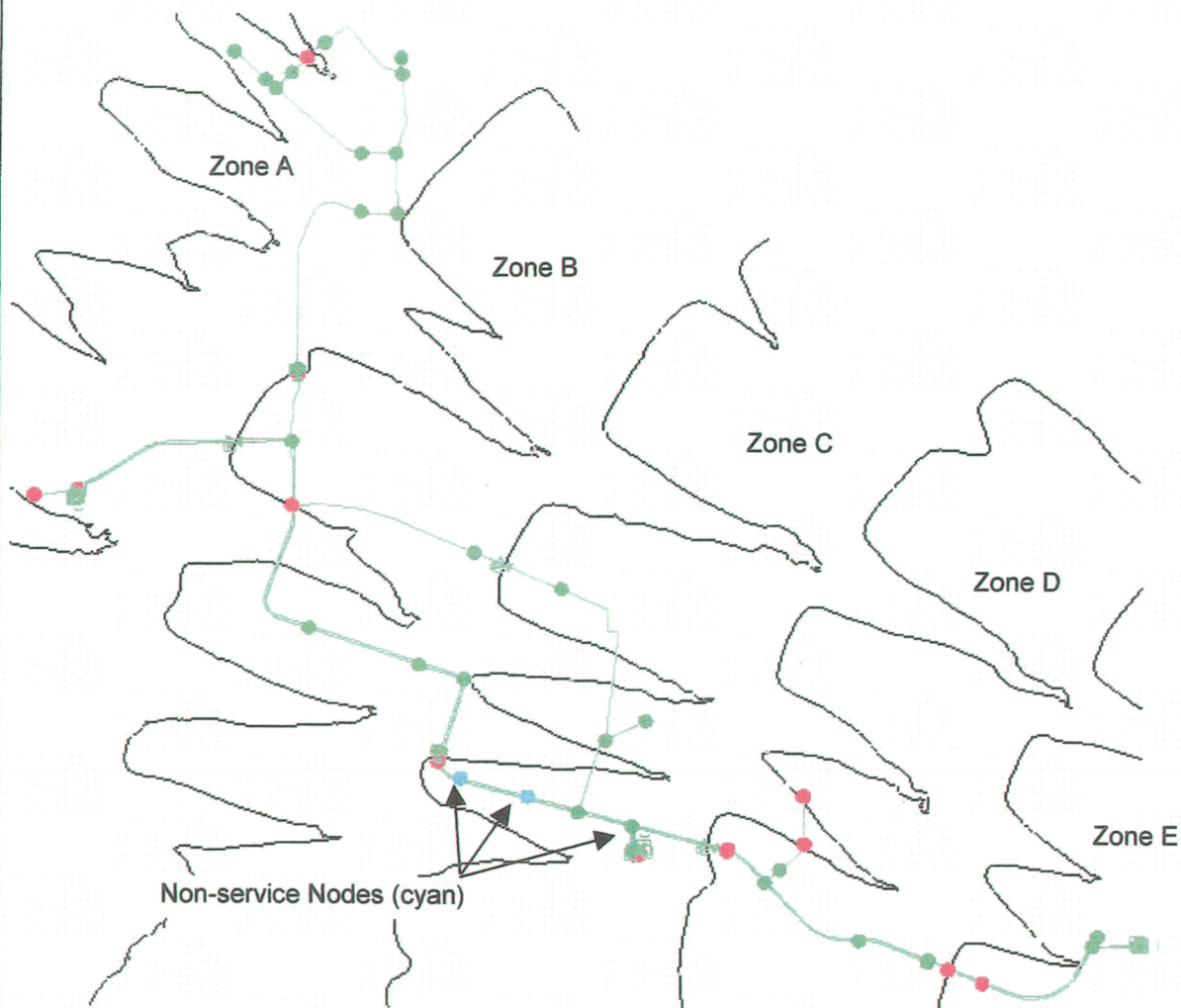


**Ridgeline Estates Water Distribution System Model Results**  
**Nodal Pressure Analysis**  
**Scenario: Interim Condition (PHD)**





**Ridgeline Estates Water Distribution System Model Results**  
**Nodal Pressure Analysis**  
**Scenario: Final Condition (PHD)**

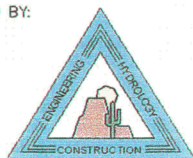


**Nodal Pressure Legend**

Junction Color	Operating Pressure
<span style="color: blue;">●</span>	< 35 psi
<span style="color: green;">●</span>	< 80 psi
<span style="color: red;">●</span>	> 80 psi

Individual PRV's are the responsibility of the homeowner. PRV's required for service connections at locations with operating pressures of 80 psi or more.

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**FIGURE 7**  
**RIDGELINE ESTATES**  
**WATER DISTRIBUTION SYSTEM**

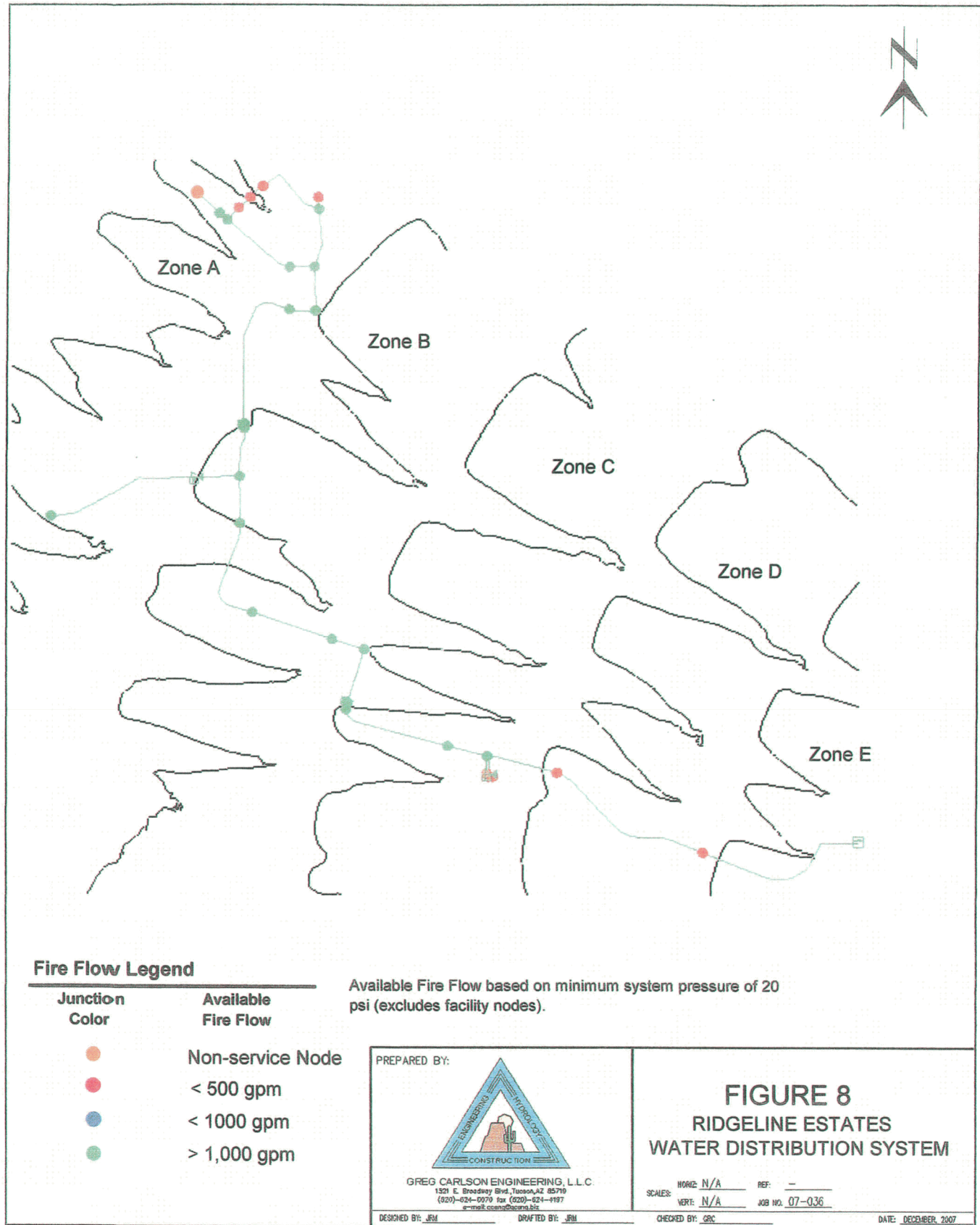
SCALES: HORIZ: N/A REF: -  
 VERT: N/A JOB NO. 07-036

CHECKED BY: GRC

DATE: DECEMBER, 2007

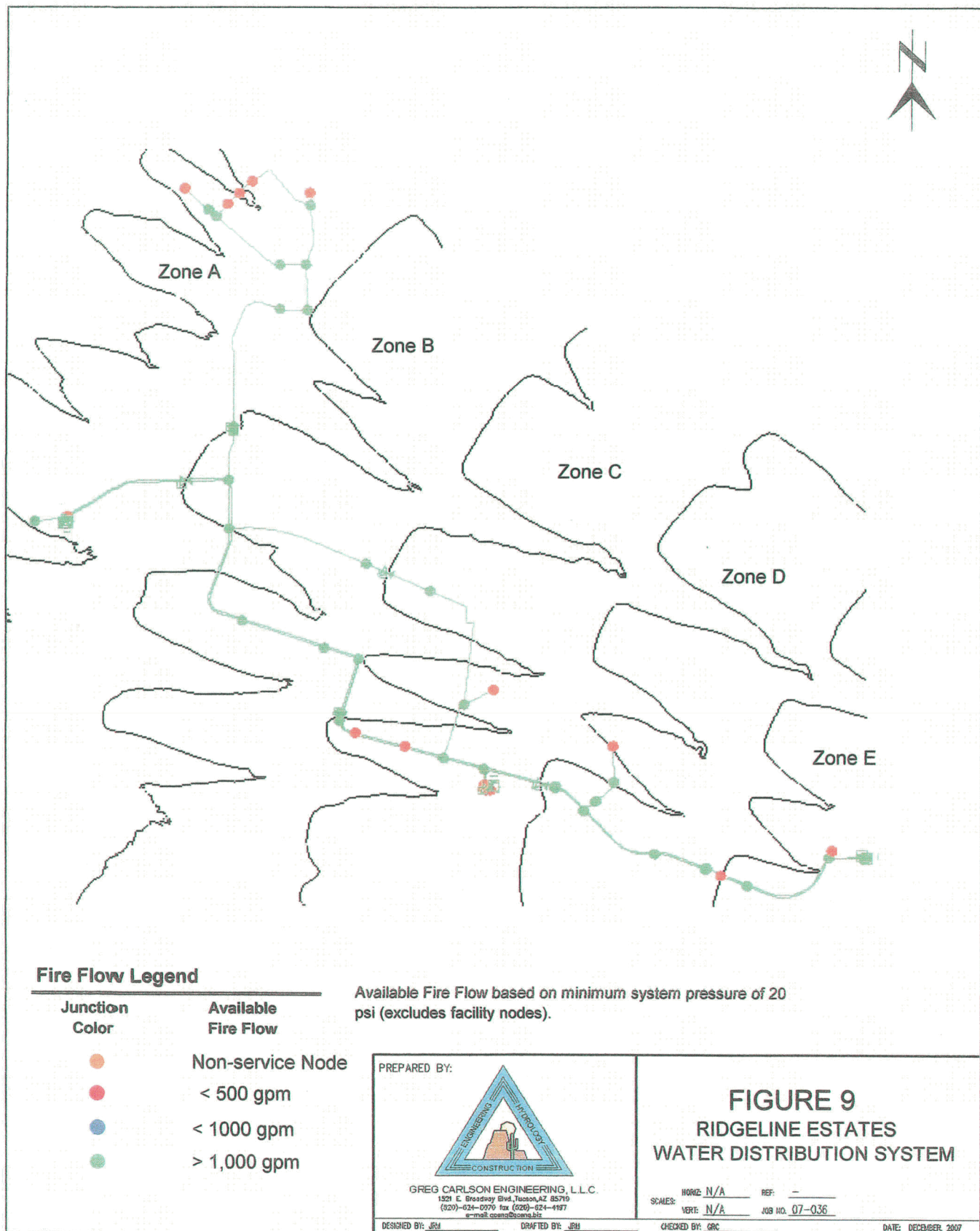


**Ridgeline Estates Water Distribution System Model Results**  
**Fire Flow Analysis**  
**Scenario: Interim Condition (MDD)**



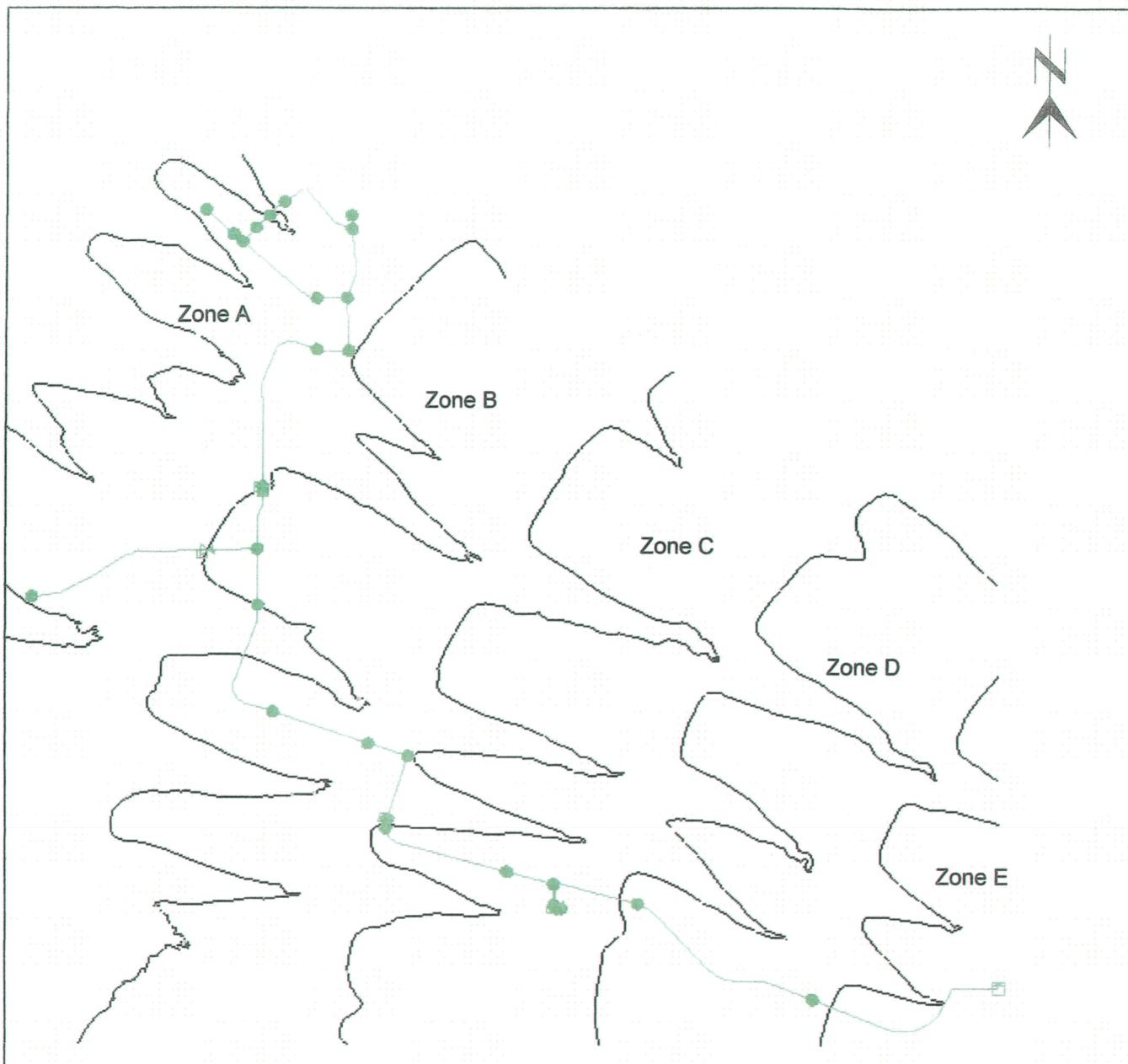


**Ridgeline Estates Water Distribution System Model Results**  
**Fire Flow Analysis**  
**Scenario: Final Condition (MDD)**





**Ridgeline Estates Water Distribution System Model Results**  
**Operating Velocity Analysis**  
**Scenario: Interim Condition (MDD)**

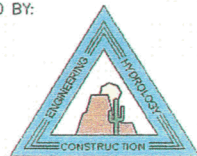


**Velocity Legend**

Pipe Color	Operating Velocity
<span style="color: green;">—</span>	< 5 ft/sec
<span style="color: red;">—</span>	> 5 ft/sec

Pipeline velocities have been limited to 8 ft/sec for mains that have the possibility of expansion and 11 ft/sec for those that do not. Results are summarized in the Fire Flow reports.

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**FIGURE 10**  
**RIDGELINE ESTATES**  
**WATER DISTRIBUTION SYSTEM**

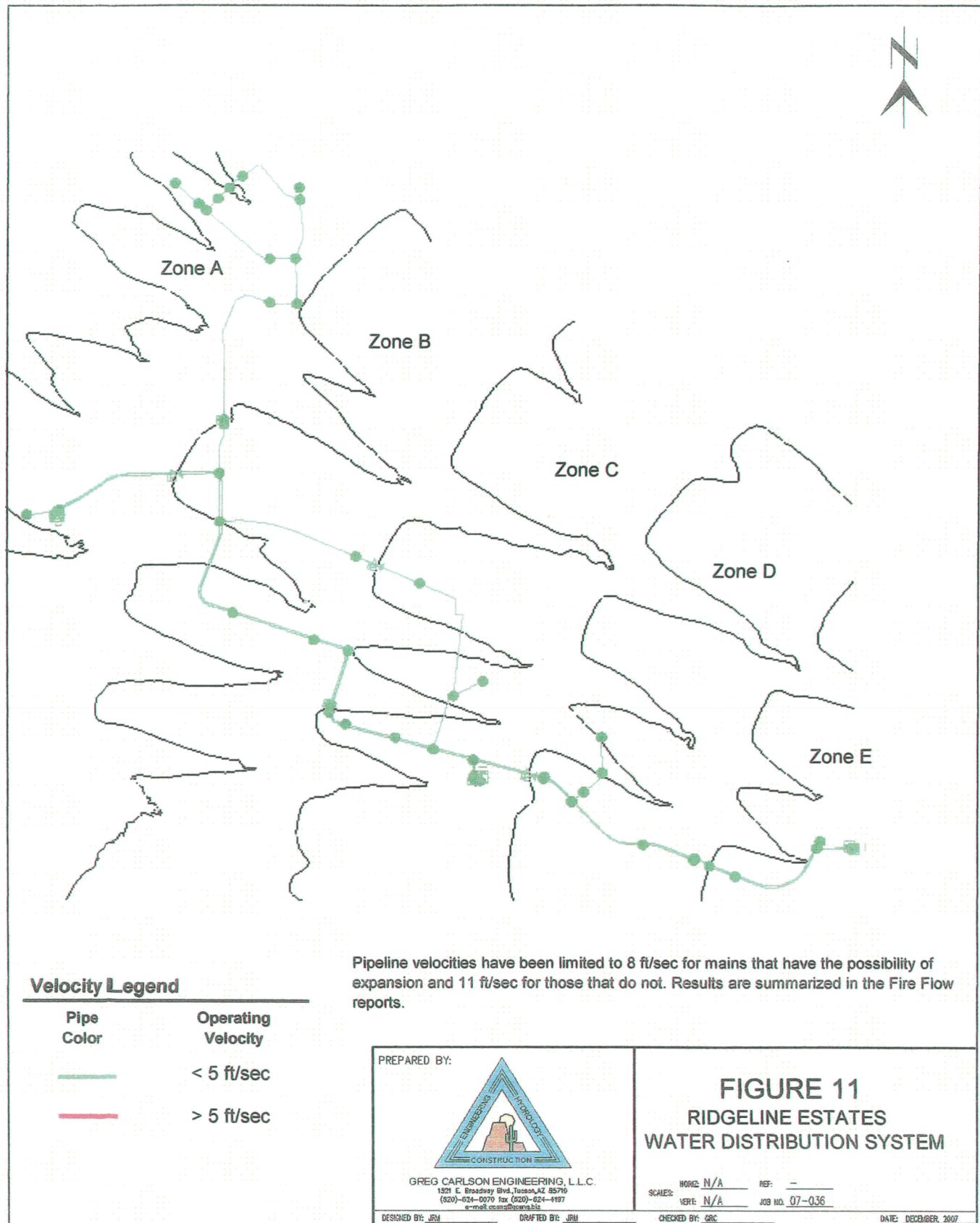
SCALES: HORIZ: N/A REF: —  
 VERT: N/A JOB NO. 07-036

CHECKED BY: SRC

DATE: DECEMBER, 2007



**Ridgeline Estates Water Distribution System Model Results**  
**Operating Velocity Analysis**  
**Scenario: Final Condition (MDD)**





**Ridgeline Estates Water Distribution System Model Results**  
**Headloss Analysis**  
**Scenario: Interim Condition (MDD)**



**Headloss Gradient Legend**

Pipe Color	Headloss Gradient
<span style="color: green;">—</span>	< 5 ft / 1000 ft
<span style="color: orange;">—</span>	< 10 ft / 1000 ft
<span style="color: red;">—</span>	> 10 ft / 1000 ft

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**FIGURE 12**  
**RIDGELINE ESTATES**  
**WATER DISTRIBUTION SYSTEM**

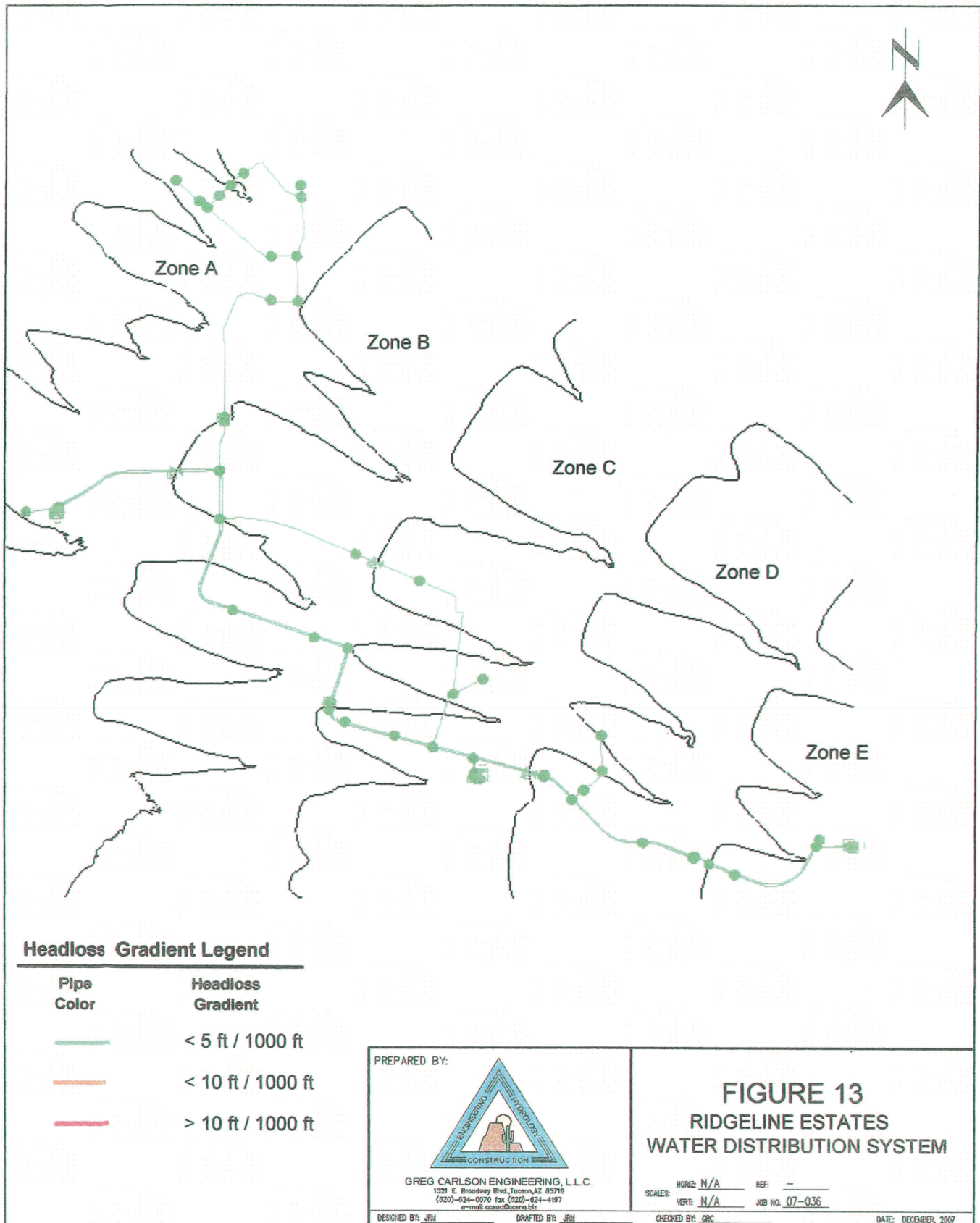
SCALES: HORIZ: N/A REF: —  
 VERT: N/A JOB NO. 07-036

CHECKED BY: GRC

DATE: DECEMBER 2007



**Ridgeline Estates Water Distribution System Model Results**  
**Headloss Analysis**  
**Scenario: Final Condition (MDD)**









Appendix B  
Calculations



**Ridgeline Estates Water Distribution Sytem  
Pressure Zone Limits**

<b>Pressure Zone</b>	<b>Low Service Elevation (85 psi)</b>	<b>High Service Elevation (40 psi)</b>	<b>High Water Elevation</b>	<b>80 psi Elevation</b>
Zone A	3320	3425	3517	3332.2
Zone B	3425	3520	3612	3427.2
Zone C	3520	3625	3717	3532.2
Zone D	3625	3730	3822	3637.2
Zone E	3730	3835	3927	3742.2



# **Ridgeline Estates Water Distribution System** **Domestic System Demands**

## **Demand Data**

Average Daily Demand (ADD) per person=	100 gpcd
Average people per household (pph)=	3
Peak Month Demand (PMD) Peaking Factor=	1.5
Maximum Daily Demand (MDD) Peaking Factor=	1.8
Peak Hour Demand (PHD) Peaking Factor=	3.15
Total Number of lots =	136

Total ADD=	28.33
Total PMD=	42.50
Total MDD=	51.00
Total PHD=	89.25

Each model node is assigned a percentage of the demand based on the number of lots closest to that node.

## **Model Demand Allocation**

Node	Zone	ADD gpm	PMD gpm	MDD gpm	PHD gpm
J-2	Facility	0	0.00	0.00	0.00
J-4	Zone A	2.28	3.42	4.10	7.18
J-5	Zone B	0.41	0.62	0.74	1.29
J-6	Zone B	1.03	1.55	1.85	3.24
J-7	Zone B	1.65	2.48	2.97	5.20
J-8	Zone B	0.62	0.93	1.12	1.95
J-9	Zone C	1.25	1.88	2.25	3.94
J-10	Zone C	1.04	1.56	1.87	3.28
J-11	Zone D	0.42	0.63	0.76	1.32
J-13	Zone E	1.04	1.56	1.87	3.28
J-14	Zone E	0.62	0.93	1.12	1.95
J-15	Zone D	0.21	0.32	0.38	0.66
J-16	Zone C	0.62	0.93	1.12	1.95
J-17	Facility	0	0.00	0.00	0.00
J-18	Zone C	0.83	1.25	1.49	2.61
J-20	Zone C	1.87	2.81	3.37	5.89
J-21	Zone B	1.86	2.79	3.35	5.86
J-22	Zone B	1.03	1.55	1.85	3.24
J-24	Zone D	0.83	1.25	1.49	2.61
J-25	Zone B	0	0.00	0.00	0.00
J-26	Zone A	0.62	0.93	1.12	1.95
J-27	Zone A	1.86	2.79	3.35	5.86
J-28	Zone A	1.45	2.18	2.61	4.57
J-29	Zone A	0.83	1.25	1.49	2.61
J-30	Zone A	0.41	0.62	0.74	1.29
J-31	Zone D	0.62	0.93	1.12	1.95
J-32	Zone D	0	0.00	0.00	0.00
J-33	Zone D	0.21	0.32	0.38	0.66
J-34	Zone D	0	0.00	0.00	0.00
J-35	Zone A	0.41	0.62	0.74	1.29
J-36	Facility	0	0.00	0.00	0.00
J-37	Zone A	0.41	0.62	0.74	1.29
J-38	Zone B	0.62	0.93	1.12	1.95
J-39	Zone C	1.24	1.86	2.23	3.91
J-41	Zone A	0	0.00	0.00	0.00



**Ridgeline Estates Water Distribution System  
Domestic System Demands**

**Model Demand Allocation continued**

<b>Node</b>	<b>Zone</b>	<b>ADD gpm</b>	<b>PMD gpm</b>	<b>MDD gpm</b>	<b>PHD gpm</b>
J-47	Facility	0	0.00	0.00	0.00
J-48	Facility	0	0.00	0.00	0.00
J-49	Facility	0	0.00	0.00	0.00
J-50	Facility	0	0.00	0.00	0.00
J-51	Facility	0	0.00	0.00	0.00
J-52	Facility	0	0.00	0.00	0.00
J-61	Zone A	0	0.00	0.00	0.00
J-62	Zone A	0	0.00	0.00	0.00
J-63	Zone A	0	0.00	0.00	0.00
J-64	Zone A	0	0.00	0.00	0.00
J-65	Zone D	0.62	0.93	1.12	1.95
J-66	Zone E	0.21	0.32	0.38	0.66
J-67	Zone E	0.62	0.93	1.12	1.95
J-68	Zone A	0	0.00	0.00	0.00
J-69	Zone D	0.62	0.93	1.12	1.95
Totals		28.36	42.54	51.05	89.33



## Ridgeline Estates Water Distribution System System Storage Requirements

### Required Domestic Storage

Zone	PMD (gpm)	Domestic Storage (gal)
Zone A	12.38	17,827
Zone B	10.83	15,598
Zone C	10.25	14,764
Zone D	5.29	7,619
Zone E	3.74	5,391
<b>Total System</b>	<b>42.50</b>	<b>61,200</b>

Domestic Storage= Average day of Peak Month

Fire Storage = 1000 gpm for 2 hours= 120,000 gallons

Total System Required Storage = 61,200 + 120,000 = 181,200 gallons

### Storage Facilities

Facility	Zones Served	Diameter (ft)	Height (ft)	Area (sf)	Required Storage (gal)	Nominal Volume (gal)	Usable Volume* (gal)
Upper	ALL	47.53	16.12	1774	181,200	213,991	187,397
Lower	(Forebay)	9.23	12	67	3,400	6,008	5,005
Wellsite	(Forebay)	15.39	12	186	12,240	16,688	13,915
<b>Total</b>							<b>206,316</b>

\*Usable Volume deducts 2' from total tank height.

Tank Data from bhtank.com

### Upper Tank Drain/Fill Calculations

1-Day ADD Volume=	40752 gallons
1-Day ADD Volume=	5448 cubic feet
This Volume equates to an Upper Tank Depth of =	3.1 feet
Approx number of times boosters will turn on in 24-hrs=	2.0
Approx. flow rate of boosters=	330.0 gpm
ADD being removed from Upper Tank during refilling=	30.0 gpm
Required run time for boosters to fill Upper Tank=	68 minutes

### Lower and Wellsite Tank Drain/Fill Calculations

Required Storage for Well-site and Lower Tank=	20376 gallons total
Available flow from Well 1=	150.0 gpm
Well run time if only Well 1 is on=	136 minutes

### Lower and Wellsite Tank Sizing

The Wellsite Tank will need to be sized to avoid draining if only Well #1 is supplying water to it. (150 gpm)  
The net inflow into the Wellsite Tank in that case would be:  
150 gpm- 330 gpm= -180 gpm  
Draining at 180 gpm for 68 minutes, the tank volume required would be a minimum of 12,240 gallons

The Lower Tank could drain if not sized considering a production difference in the Wellsite and Lower boosters. The boosters will be designed to produce roughly the same flow rate. As a safety measure, the Lower Tank will be sized such that it will not drain in the event that the Wellsite booster is supplying 50 gpm less than the Lower booster.  
50 gpm X 68 minutes=3,400 gallons.







Appendix C  
Model Results



**Pipe Report**  
**Scenario: Final Condition (MDD)**

Label	Scaled Length (ft)	Length (User Defined) (ft)	Is Open?	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-1	46	0	TRUE	8	PVC	120	0	0	0
P-4	665	0	TRUE	8	PVC	120	-15.64	0.1	0.01
P-5	1,584	0	TRUE	8	PVC	120	-5.8	0.04	0.002
P-13	1,335	0	TRUE	8	PVC	120	-2.25	0.01	0
P-17	7,176	0	TRUE	8	PVC	120	0	0	0
P-20	794	0	TRUE	8	PVC	120	21.03	0.13	0.017
P-21	426	0	TRUE	4	PVC	120	1.12	0.03	0.002
P-26	1,098	0	TRUE	8	PVC	120	-8.77	0.06	0.003
P-27	448	0	TRUE	8	PVC	120	-10.64	0.07	0.005
P-29	1,811	0	TRUE	8	PVC	120	-11.7	0.07	0.006
P-31	1,126	0	TRUE	6	PVC	120	-14.21	0.16	0.033
P-34	690	0	TRUE	12	PVC	120	10.8	0.03	0.001
P-42	324	0	TRUE	8	PVC	120	3.77	0.02	0.001
P-46	685	0	TRUE	6	PVC	120	-15.71	0.18	0.039
P-50	25	0	TRUE	8	PVC	120	-16.83	0.11	0.01
P-52	482	0	TRUE	6	PVC	120	-10.84	0.12	0.02
P-54	2,297	0	TRUE	8	PVC	120	-29.78	0.19	0.032
P-55	25	0	TRUE	8	PVC	120	-29.78	0.19	0.029
P-56	2,340	0	TRUE	8	PVC	120	-46.61	0.3	0.073
P-60	762	0	TRUE	8	PVC	120	-40.25	0.26	0.055
P-61	166	0	TRUE	8	PVC	120	-40.25	0.26	0.056
P-64	1,941	0	TRUE	8	PVC	120	-18.42	0.12	0.013
P-65	305	0	TRUE	8	PVC	120	-15.05	0.1	0.009
P-66	591	0	TRUE	8	PVC	120	-15.05	0.1	0.009
P-67	2,052	0	TRUE	8	PVC	120	-4.1	0.03	0.001
P-68	540	0	TRUE	8	PVC	120	-4.1	0.03	0.001
P-70	2,149	0	TRUE	12	PVC	120	10.05	0.03	0.001
P-71	4	0	TRUE	8	PVC	120	10.8	0.07	0
P-72	58	0	TRUE	12	PVC	120	10.8	0.03	0
P-75	655	0	TRUE	8	PVC	120	0	0	0
P-79	344	0	TRUE	12	PVC	120	8.56	0.02	0.001
P-80	627	0	TRUE	8	PVC	120	7.82	0.05	0.003
P-81	780	0	TRUE	8	PVC	120	-11.75	0.08	0.006
P-82	51	0	TRUE	8	PVC	120	-12.87	0.08	0.005
P-83	58	0	TRUE	8	PVC	120	-12.87	0.08	0.004
P-84	1,462	0	TRUE	8	PVC	120	-15.1	0.1	0.009
P-99	1,282	0	TRUE	8	PVC	120	0	0	0
P-101	108	0	TRUE	8	PVC	120	0	0	0
P-103	1,217	0	TRUE	8	PVC	120	0	0	0
P-106	35	0	TRUE	8	PVC	120	0	0	0
P-107	30	0	TRUE	8	PVC	120	0	0	0
P-109	6	0	TRUE	8	PVC	120	4.5	0.03	0
P-110	17	0	TRUE	8	PVC	120	4.49	0.03	0
P-111	27	10	TRUE	8	PVC	120	0	0	0
P-112	434	0	TRUE	8	PVC	120	-4.49	0.03	0.001
P-113	16	0	TRUE	8	PVC	120	-4.49	0.03	0
P-114	26	10	TRUE	8	PVC	120	0	0	0
P-115	22	1	FALSE	8	PVC	120	0	0	0
P-116	528	0	TRUE	8	PVC	120	-38.38	0.24	0.051
P-117	252	0	TRUE	8	PVC	120	0	0	0
P-118	48	0	TRUE	8	PVC	120	0	0	0
P-119	58	0	TRUE	8	PVC	120	0	0	0
P-120	73	0	TRUE	8	PVC	120	0	0	0
P-121	71	0	TRUE	8	PVC	120	0	0	0



**Pipe Report**  
**Scenario: Final Condition (MDD)**

P-134	33	1	FALSE	8	PVC	120	0	0	0
P-137	22	1	FALSE	8	PVC	120	0	0	0
P-138	16	1	TRUE	8	PVC	120	0	0	0
P-139	8	1	TRUE	8	PVC	120	0	0	0
P-154	231	0	TRUE	4	Ductile Iron	120	-0.32	0.01	0
P-155	996	0	TRUE	4	PVC	120	-0.32	0.01	0
P-156	219	0	TRUE	4	PVC	120	-0.32	0.01	0.001
P-157	207	0	TRUE	4	Ductile Iron	120	-0.32	0.01	0
P-158	1,061	0	TRUE	8	PVC	120	3.03	0.02	0
P-161	164	0	TRUE	4	PVC	120	-2.61	0.07	0.01
P-162	827	0	TRUE	8	PVC	120	-2.93	0.02	0
P-164	357	0	TRUE	8	PVC	120	-1.5	0.01	0
P-165	197	0	TRUE	8	PVC	120	-2.62	0.02	0.001
P-167	354	0	TRUE	4	PVC	120	0.37	0.01	0.001
P-168	109	0	TRUE	4	PVC	120	1.12	0.03	0.002
P-169	135	0	TRUE	8	PVC	120	3.35	0.02	0
P-170	411	0	TRUE	4	PVC	120	3.35	0.09	0.016
P-171	495	0	TRUE	4	PVC	120	1.12	0.03	0.002



**Junction Report**  
**Scenario: Final Condition (MDD)**

Label	Zone	Elevation (ft)	Demand (gpm)	Pressure (psi)	Pressure Head (ft)
J-2	212: Facility	3,356.00	0	110.8	256
J-4	207: Zone A	3,332.00	4.1	80.3	185.48
J-5	208: Zone B	3,440.00	0.74	74.6	172.47
J-6	208: Zone B	3,424.00	1.86	81.5	188.47
J-7	208: Zone B	3,470.00	2.98	61.6	142.48
J-8	208: Zone B	3,516.00	1.12	41.7	96.48
J-9	209: Zone C	3,574.00	2.25	62	143.42
J-10	209: Zone C	3,596.00	1.87	52.5	121.44
J-11	210: Zone D	3,650.00	0.75	74.3	171.77
J-13	211: Zone E	3,744.00	1.87	90	208
J-14	211: Zone E	3,774.00	1.12	77	178
J-15	210: Zone D	3,610.00	0.37	91.6	211.77
J-16	209: Zone C	3,584.00	1.12	57.7	133.4
J-17	212: Facility	3,532.00	0	34.6	80
J-18	209: Zone C	3,548.00	1.49	73.3	169.4
J-20	209: Zone C	3,540.00	3.37	76.7	177.38
J-21	208: Zone B	3,510.00	3.35	44.3	102.48
J-22	208: Zone B	3,502.00	1.86	47.8	110.48
J-24	210: Zone D	3,692.00	1.5	56.2	129.8
J-25	208: Zone B	3,425.00	0	81.1	187.47
J-26	207: Zone A	3,410.00	1.12	46.5	107.48
J-27	207: Zone A	3,336.00	3.35	78.5	181.48
J-28	207: Zone A	3,390.00	2.61	55.2	127.48
J-29	207: Zone A	3,410.00	1.49	46.5	107.48
J-30	207: Zone A	3,402.00	0.74	50	115.48
J-31	210: Zone D	3,720.00	1.12	44.1	101.83
J-32	210: Zone D	3,720.00	0	44.1	101.83
J-33	210: Zone D	3,628.00	0.37	83.8	193.76
J-34	210: Zone D	3,628.00	0	83.8	193.76
J-35	207: Zone A	3,415.00	0.74	44.3	102.49
J-36	212: Facility	3,556.00	0	24.2	56
J-37	207: Zone A	3,422.00	0.74	41.3	95.48
J-38	208: Zone B	3,508.00	1.12	45.2	104.49
J-39	209: Zone C	3,524.00	2.23	83.7	193.4
J-41	207: Zone A	3,300.00	0	94.1	217.48
J-47	212: Facility	3,600.00	0	5.2	12
J-48	212: Facility	3,600.00	0	95.9	221.76
J-49	212: Facility	3,807.00	0	6.5	15
J-50	212: Facility	3,804.00	0	64	148
J-51	212: Facility	3,600.00	0	50.8	117.44
J-52	212: Facility	3,600.00	0	95.9	221.76
J-61	207: Zone A	3,360.00	0	68.1	157.48
J-62	207: Zone A	3,360.00	0	68.1	157.48
J-63	207: Zone A	3,362.00	0	67.3	155.48
J-64	207: Zone A	3,394.00	0	53.4	123.48
J-65	210: Zone D	3,654.00	1.12	72.6	167.77
J-66	211: Zone E	3,730.00	0.37	96	222
J-67	211: Zone E	3,782.00	1.12	73.5	170
J-68	207: Zone A	3,358.00	0	69	159.48
J-69	210: Zone D	3,630.00	1.12	83	191.77



**Tank Report**  
**Scenario: Final Condition (MDD)**

Label	Base Elevation (ft)	Minimum Elevation (ft)	Initial Elevation (ft)	Maximum Elevation (ft)	Diameter (ft)	Outflow (gpm)	Hydraulic Grade (ft)	Net Inflow (gpm)
Upper Tank	3,807.00	3,808.00	3,822.00	3,823.00	47.53	51.11	3,822.00	-51.11
Lower Tank	3,601.00	3,602.00	3,612.00	3,613.00	12.31	0	3,612.00	0
Wellsite Tank	3,351.00	3,352.00	3,362.00	3,363.00	15.39	0	3,362.00	0



**Pump Report**  
**Scenario: Final Condition (MDD)**

Label	Elevation (ft)	Pump Definition	Status	Intake Grade (ft)	Discharge Grade (ft)	Discharge (gpm)	Pump Head (ft)
Lower Pump	3,601.00	202: Lower	Off	3,612.00	3,821.80	0	0.00
Wellsite Pump	3,351.00	201: Wellsite	Off	3,362.00	3,612.00	0	0.00
Upper Pump	3,808.00	203: Upper	On	3,822.00	3,952.00	4.49	130.00
Fire Pump	3,808.00	204: Upper Fire	Off	3,822.00	3,952.00	0	0.00



**PRV Report**  
**Scenario: Final Condition (MDD)**

Label	Elevation (ft)	Status (Calculated)	Diameter (in)	Minor Loss	Hydraulic Grade Setting (Initial) (ft)	Pressure Setting (Initial) (psi)	Flow (gpm)	From Hydraulic Grade (ft)	To Hydraulic Grade (ft)	Headloss (ft)	Pressure (To) (psi)	Pressure (From) (psi)
C PRV	3,625	Active	6	6.2	3,717.40	40	40.25	3,821.70	3,717.50	104.26	40	85.1
B PRV (south)	3,520.00	Active	6	6.2	3,612.40	40.00	12.87	3,717.40	3,612.50	104.92	40	85.4
B PRV (north)	3,520	Active	6	6.2	3,612.40	40.00	15.05	3,717.40	3,612.50	104.89	40	85.4
A PRV (south)	3,425	Active	6	6.2	3,517.40	40.00	4.1	3,612.50	3,517.50	94.98	40	81.1
A PRV (north)	3,425	Active	6	6.2	3,517.40	40.00	10.8	3,612.50	3,517.50	94.98	40	81.1
Trans/C PRV	3,600	Closed	6	6.2	3,692.40	40.00	0	3,821.80	3,717.40	0	50.8	95.9



**Fire Flow Report**  
**Scenario: Final Condition (MDD + Fire Flow)**

Label	Zone	Fire Flow (Available) (gpm)	Pressure (Residual Lower Limit) (psi)	Pressure (Zone Lower Limit) (psi)	Pressure (Calculated Residual Lower Limit) (psi)	Pressure (Calculated Zone Lower Limit) (psi)	Junction w/Minimum Pressure (Zone)	Velocity of Maximum Pipe (ft/s)	Pipe w/Maximum Velocity
J-2	212: Facility	(N/A)	20	20	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
J-4	207: Zone A	1,461.30	20	20	20	40.8	144: J-37	9.62	111: P-56
J-5	208: Zone B	1,495.52	20	20	27.3	20.1	64: J-21	9.84	111: P-56
J-6	208: Zone B	1,495.38	20	20	47.4	20.1	64: J-21	9.84	111: P-56
J-7	208: Zone B	1,496.83	20	20	29.1	20.1	33: J-8	9.85	111: P-56
J-8	208: Zone B	1,457.62	20	20	20.1	27.3	67: J-22	9.6	111: P-56
J-9	209: Zone C	1,415.20	20	20	24.4	20.1	52: J-16	9.33	111: P-56
J-10	209: Zone C	1,463.03	20	20	20	25.2	52: J-16	9.64	111: P-56
J-11	210: Zone D	1,018.72	20	20	35.2	20	96: J-31	6.8	111: P-56
J-13	211: Zone E	1,531.30	20	20	20	26.1	337: J-66	9.8	192: P-109
J-14	211: Zone E	1,658.90	20	20	23.5	20	339: J-67	10.62	197: P-112
J-15	210: Zone D	1,018.69	20	20	47.3	20	96: J-31	6.8	111: P-56
J-16	209: Zone C	(N/A)	20	20	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
J-17	212: Facility	(N/A)	20	20	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
J-18	209: Zone C	1,296.78	20	20	35.6	20	52: J-16	8.57	111: P-56
J-20	209: Zone C	1,233.82	20	20	20	27.4	52: J-16	8.17	111: P-56
J-21	208: Zone B	1,444.47	20	20	20.1	35.5	33: J-8	9.52	111: P-56
J-22	208: Zone B	1,469.80	20	20	22.5	20.1	33: J-8	9.68	111: P-56
J-24	210: Zone D	1,016.48	20	20	20	20	96: J-31	7.61	97: P-46
J-25	208: Zone B	1,495.98	20	20	31.9	20	64: J-21	9.85	111: P-56
J-26	207: Zone A	1,432.01	20	20	20.1	23.6	91: J-30	9.44	111: P-56
J-27	207: Zone A	(N/A)	20	20	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
J-28	207: Zone A	(N/A)	20	20	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
J-29	207: Zone A	1,469.46	20	20	25.2	20	144: J-37	9.68	111: P-56
J-30	207: Zone A	1,423.96	20	20	20.1	21.7	80: J-26	9.39	111: P-56
J-31	210: Zone D	1,014.56	20	20	20	20.2	99: J-32	6.77	111: P-56
J-32	210: Zone D	1,019.99	20	20	20	20	96: J-31	6.81	111: P-56
J-33	210: Zone D	1,019.16	20	20	48.2	20	96: J-31	6.8	111: P-56
J-34	210: Zone D	1,019.16	20	20	48.3	20	96: J-31	6.8	111: P-56
J-35	207: Zone A	1,499.98	20	20	23	20	144: J-37	9.87	111: P-56
J-36	212: Facility	(N/A)	20	20	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
J-37	207: Zone A	1,464.50	20	20	20	25.2	80: J-26	9.65	111: P-56
J-38	208: Zone B	1,500.18	20	20	21.9	20	33: J-8	9.87	111: P-56
J-39	209: Zone C	1,415.77	20	20	20.4	20	52: J-16	9.33	111: P-56
J-41	207: Zone A	(N/A)	20	20	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
J-47	212: Facility	(N/A)	20	20	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)



**Fire Flow Report**  
**Scenario: Final Condition (MDD + Fire Flow)**

J-48	212: Facility	(N/A)	20	20	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
J-49	212: Facility	(N/A)	20	20	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
J-50	212: Facility	(N/A)	20	20	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
J-51	212: Facility	(N/A)	20	20	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
J-52	212: Facility	(N/A)	20	20	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
J-61	207: Zone A	(N/A)	20	20	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
J-62	207: Zone A	(N/A)	20	20	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
J-63	207: Zone A	1,426.56	20	20	22.8	20.2	91: J-30	9.4	111: P-56
J-64	207: Zone A	1,407.91	20	20	20	21.8	84: J-28	9.28	111: P-56
J-65	210: Zone D	1,018.74	20	20	31.6	20.96	J-31	6.8	111: P-56
J-66	211: Zone E	(N/A)	20	20	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
J-67	211: Zone E	(N/A)	20	20	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
J-68	207: Zone A	1,426.89	20	20	22.1	20.1	91: J-30	9.41	111: P-56
J-69	210: Zone D	(N/A)	20	20	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)



**Pipe Report**  
**Scenario: Final Condition (PHD)**

Label	Scaled Length (ft)	Length (User Defined) (ft)	Is Open?	Diameter (in)	Material	Hazen- Williams C	Flow (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-1	46	0.00	TRUE	8 PVC		120	0	0	0
P-4	665	0.00	TRUE	8 PVC		120	-27.36	0.17	0.027
P-5	1,584	0.00	TRUE	8 PVC		120	-10.14	0.06	0.004
P-13	1,335	0.00	TRUE	8 PVC		120	-3.93	0.03	0.001
P-17	7,176	0.00	TRUE	8 PVC		120	0	0	0
P-20	794	0.00	TRUE	8 PVC		120	36.8	0.23	0.047
P-21	426	0.00	TRUE	4 PVC		120	1.95	0.05	0.006
P-26	1,098	0.00	TRUE	8 PVC		120	-15.36	0.1	0.009
P-27	448	0.00	TRUE	8 PVC		120	-18.61	0.12	0.013
P-29	1,811	0.00	TRUE	8 PVC		120	-20.48	0.13	0.016
P-31	1,126	0.00	TRUE	6 PVC		120	-24.87	0.28	0.092
P-34	690	0.00	TRUE	12 PVC		120	18.89	0.05	0.002
P-42	324	0.00	TRUE	8 PVC		120	6.6	0.04	0.002
P-46	685	0	TRUE	6 PVC		120	-27.49	0.31	0.111
P-50	25	0.00	TRUE	6 PVC		120	-29.45	0.19	0.029
P-52	482	0.00	TRUE	8 PVC		120	-18.98	0.22	0.056
P-54	2,297	0.00	TRUE	8 PVC		120	-52.12	0.33	0.089
P-55	25	0.00	TRUE	8 PVC		120	-52.12	0.33	0.096
P-56	2,340	0.00	TRUE	8 PVC		120	-81.57	0.52	0.204
P-60	762	0.00	TRUE	8 PVC		120	-70.44	0.45	0.156
P-61	166	0.00	TRUE	8 PVC		120	-70.44	0.45	0.155
P-64	1,941	0.00	TRUE	8 PVC		120	-32.24	0.21	0.037
P-65	305	0.00	TRUE	8 PVC		120	-26.34	0.17	0.025
P-66	591	0.00	TRUE	8 PVC		120	-26.34	0.17	0.025
P-67	2,052	0.00	TRUE	8 PVC		120	-7.17	0.05	0.002
P-68	540	0.00	TRUE	8 PVC		120	-7.17	0.05	0.002
P-70	2,149	0.00	TRUE	12 PVC		120	17.59	0.05	0.002
P-71	4	0.00	TRUE	8 PVC		120	18.89	0.12	0
P-72	58	0.00	TRUE	12 PVC		120	18.89	0.05	0
P-75	655	0.00	TRUE	8 PVC		120	0	0	0
P-79	344	0	TRUE	12 PVC		120	14.98	0.04	0.001
P-80	627	0.00	TRUE	8 PVC		120	13.68	0.09	0.007
P-81	780	0.00	TRUE	8 PVC		120	-20.57	0.13	0.016
P-82	51	0.00	TRUE	8 PVC		120	-22.52	0.14	0.019
P-83	58	0.00	TRUE	8 PVC		120	-22.52	0.14	0.021
P-84	1,462	0.00	TRUE	8 PVC		120	-26.43	0.17	0.025



**Fire Flow Report**  
**Scenario: Final Condition (MDD + Fire Flow)**

J-48	212: Facility	(N/A)	20	20	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
J-49	212: Facility	(N/A)	20	20	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
J-50	212: Facility	(N/A)	20	20	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
J-51	212: Facility	(N/A)	20	20	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
J-52	212: Facility	(N/A)	20	20	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
J-61	207: Zone A	(N/A)	20	20	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
J-62	207: Zone A	(N/A)	20	20	22.8	20.2	91: J-30	9.4	111: P-56
J-63	207: Zone A	1,426.56	20	20	20	21.8	84: J-28	9.28	111: P-56
J-64	207: Zone A	1,407.91	20	20	31.6	20.96	J-31	6.8	111: P-56
J-65	210: Zone D	1,018.74	20	20	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
J-66	211: Zone E	(N/A)	20	20	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
J-67	211: Zone E	(N/A)	20	20	22.1	20.1	91: J-30	9.41	111: P-56
J-68	207: Zone A	1,426.89	20	20	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
J-69	210: Zone D	(N/A)	20	20	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)



**Pipe Report**  
Scenario: Final Condition (PHD)

Label	Scaled Length (ft)	Length (User Defined) (ft)	Is Open?	Diameter (in)	Material	Hazen- Williams C	Flow (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-1	46	0.00	TRUE	8	PVC	120	0	0	0
P-4	665	0.00	TRUE	8	PVC	120	-27.36	0.17	0.027
P-5	1,584	0.00	TRUE	8	PVC	120	-10.14	0.06	0.004
P-13	1,335	0.00	TRUE	8	PVC	120	-3.93	0.03	0.001
P-17	7,176	0.00	TRUE	8	PVC	120	0	0	0
P-20	794	0.00	TRUE	8	PVC	120	36.8	0.23	0.047
P-21	426	0.00	TRUE	4	PVC	120	1.95	0.05	0.006
P-26	1,098	0.00	TRUE	8	PVC	120	-15.36	0.1	0.009
P-27	448	0.00	TRUE	8	PVC	120	-18.61	0.12	0.013
P-29	1,811	0.00	TRUE	8	PVC	120	-20.48	0.13	0.016
P-31	1,126	0.00	TRUE	6	PVC	120	-24.87	0.28	0.092
P-34	690	0.00	TRUE	12	PVC	120	18.89	0.05	0.002
P-42	324	0.00	TRUE	8	PVC	120	6.6	0.04	0.002
P-46	685	0	TRUE	6	PVC	120	-27.49	0.31	0.111
P-50	25	0.00	TRUE	8	PVC	120	-29.45	0.19	0.029
P-52	482	0.00	TRUE	6	PVC	120	-18.98	0.22	0.056
P-54	2,297	0.00	TRUE	8	PVC	120	-52.12	0.33	0.089
P-55	25	0.00	TRUE	8	PVC	120	-52.12	0.33	0.096
P-56	2,340	0.00	TRUE	8	PVC	120	-81.57	0.52	0.204
P-60	762	0.00	TRUE	8	PVC	120	-70.44	0.45	0.156
P-61	166	0.00	TRUE	8	PVC	120	-70.44	0.45	0.155
P-64	1,941	0.00	TRUE	8	PVC	120	-32.24	0.21	0.037
P-65	305	0.00	TRUE	8	PVC	120	-26.34	0.17	0.025
P-66	591	0.00	TRUE	8	PVC	120	-26.34	0.17	0.025
P-67	2,052	0.00	TRUE	8	PVC	120	-7.17	0.05	0.002
P-68	540	0.00	TRUE	8	PVC	120	-7.17	0.05	0.002
P-70	2,149	0.00	TRUE	12	PVC	120	17.59	0.05	0.002
P-71	4	0.00	TRUE	8	PVC	120	18.89	0.12	0
P-72	58	0.00	TRUE	12	PVC	120	18.89	0.05	0
P-75	655	0.00	TRUE	8	PVC	120	0	0	0
P-79	344	0	TRUE	12	PVC	120	14.98	0.04	0.001
P-80	627	0.00	TRUE	8	PVC	120	13.68	0.09	0.007
P-81	780	0.00	TRUE	8	PVC	120	-20.57	0.13	0.016
P-82	51	0.00	TRUE	8	PVC	120	-22.52	0.14	0.019
P-83	58	0.00	TRUE	8	PVC	120	-22.52	0.14	0.021
P-84	1,462	0.00	TRUE	8	PVC	120	-26.43	0.17	0.025



# Pipe Report

Scenario: Final Condition (PHD)

P-99	1,282	0.00	TRUE	8 PVC	120	0	0	0
P-101	108	0.00	TRUE	8 PVC	120	0	0	0
P-103	1,217	0.00	TRUE	8 PVC	120	0	0	0
P-106	35	0.00	TRUE	8 PVC	120	0	0	0
P-107	30	0.00	TRUE	8 PVC	120	0	0	0
P-109	6	0	TRUE	8 PVC	120	7.86	0.05	0
P-110	17	0	TRUE	8 PVC	120	7.86	0.05	0
P-111	27	10	TRUE	8 PVC	120	0	0	0
P-112	434	0	TRUE	8 PVC	120	-7.86	0.05	0.003
P-113	16	0	TRUE	8 PVC	120	-7.86	0.05	0
P-114	26	10	TRUE	8 PVC	120	0	0	0
P-115	22	1.00	FALSE	8 PVC	120	0	0	0
P-116	528	0.00	TRUE	8 PVC	120	-67.17	0.43	0.143
P-117	252	0.00	TRUE	8 PVC	120	0	0	0
P-118	48	0.00	TRUE	8 PVC	120	0	0	0
P-119	58	0.00	TRUE	8 PVC	120	0	0	0
P-120	73	0.00	TRUE	8 PVC	120	0	0	0
P-121	71	0.00	TRUE	8 PVC	120	0	0	0
P-134	33	1.00	FALSE	8 PVC	120	0	0	0
P-137	22	1.00	FALSE	8 PVC	120	0	0	0
P-138	16	1	TRUE	8 PVC	120	0	0	0
P-139	8	1	TRUE	8 PVC	120	0	0	0
P-154	231	0	TRUE	4 Ductile Iron	120	-0.57	0.01	0
P-155	996	0	TRUE	4 PVC	120	-0.57	0.01	0.001
P-156	219	0	TRUE	4 PVC	120	-0.57	0.01	0
P-157	207	0	TRUE	4 Ductile Iron	120	-0.57	0.01	0.001
P-158	1,061	0	TRUE	8 PVC	120	5.3	0.03	0.001
P-161	164	0	TRUE	4 PVC	120	-4.56	0.12	0.028
P-162	827	0	TRUE	8 PVC	120	-5.13	0.03	0.001
P-164	357	0	TRUE	8 PVC	120	-2.62	0.02	0
P-165	197	0	TRUE	8 PVC	120	-4.59	0.03	0.001
P-167	354	0	TRUE	4 PVC	120	0.66	0.02	0.001
P-168	109	0	TRUE	4 PVC	120	1.97	0.05	0.004
P-169	135	0	TRUE	8 PVC	120	5.86	0.04	0.002
P-170	411	0	TRUE	4 PVC	120	5.86	0.15	0.046
P-171	495	0	TRUE	4 PVC	120	1.97	0.05	0.006



**Junction Report**  
**Scenario: Final Condition (PHD)**

Label	Zone	Elevation (ft)	Demand (gpm)	Pressure (psi)	Pressure Head (ft)	Fire Flow (Available) (gpm)
J-2	212: Facility	3,356.00	0	110.8	256	(N/A)
J-4	207: Zone A	3,332.00	7.17	80.2	185.48	1,441.28
J-5	208: Zone B	3,440.00	1.3	74.6	172.43	1,464.48
J-6	208: Zone B	3,424.00	3.26	81.5	188.45	1,464.47
J-7	208: Zone B	3,470.00	5.21	61.6	142.46	1,466.17
J-8	208: Zone B	3,516.00	1.95	41.7	96.47	1,428.18
J-9	209: Zone C	3,574.00	3.93	62	143.29	1,381.96
J-10	209: Zone C	3,596.00	3.28	52.5	121.37	1,429.75
J-11	210: Zone D	3,650.00	1.31	74.1	171.34	983.74
J-13	211: Zone E	3,744.00	3.28	90	207.99	574.23
J-14	211: Zone E	3,774.00	1.97	77	177.99	574.4
J-15	210: Zone D	3,610.00	0.66	91.4	211.34	983.66
J-16	209: Zone C	3,584.00	1.95	57.7	133.25	(N/A)
J-17	212: Facility	3,532.00	0	34.6	80	(N/A)
J-18	209: Zone C	3,548.00	2.61	73.2	169.25	1,266.17
J-20	209: Zone C	3,540.00	5.9	76.7	177.18	1,211.75
J-21	208: Zone B	3,510.00	5.86	44.3	102.48	1,415.88
J-22	208: Zone B	3,502.00	3.26	47.8	110.47	1,440.03
J-24	210: Zone D	3,692.00	2.62	56	129.45	982.50
J-25	208: Zone B	3,425.00	0	81.1	187.43	1,465.00
J-26	207: Zone A	3,410.00	1.95	46.5	107.48	1,408.21
J-27	207: Zone A	3,336.00	5.86	78.5	181.46	(N/A)
J-28	207: Zone A	3,390.00	4.56	55.2	127.47	(N/A)
J-29	207: Zone A	3,410.00	2.61	46.5	107.48	1,444.23
J-30	207: Zone A	3,402.00	1.3	50	115.48	1,400.79
J-31	210: Zone D	3,720.00	1.95	43.9	101.52	979.76
J-32	210: Zone D	3,720.00	0	43.9	101.52	985.03
J-33	210: Zone D	3,628.00	0.66	83.6	193.31	984.06
J-34	210: Zone D	3,628.00	0	83.6	193.32	984.05
J-35	207: Zone A	3,415.00	1.3	44.3	102.49	1,473.42
J-36	212: Facility	3,556.00	0	24.2	56	(N/A)
J-37	207: Zone A	3,422.00	1.3	41.3	95.48	1,439.07
J-38	208: Zone B	3,508.00	1.95	45.2	104.49	1,468.76
J-39	209: Zone C	3,524.00	3.91	83.6	193.26	1,382.36
J-41	207: Zone A	3,300.00	0	94.1	217.48	(N/A)
J-47	212: Facility	3,600.00	0	5.2	12	(N/A)
J-48	212: Facility	3,600.00	0	95.8	221.32	(N/A)
J-49	212: Facility	3,807.00	0	6.5	15	(N/A)
J-50	212: Facility	3,804.00	0	64	147.99	(N/A)
J-51	212: Facility	3,600.00	0	50.8	117.37	(N/A)
J-52	212: Facility	3,600.00	0	95.8	221.32	(N/A)
J-61	207: Zone A	3,360.00	0	68.1	157.48	(N/A)
J-62	207: Zone A	3,360.00	0	68.1	157.48	(N/A)
J-63	207: Zone A	3,362.00	0	67.3	155.48	1,403.86
J-64	207: Zone A	3,394.00	0	53.4	123.48	1,385.43
J-65	210: Zone D	3,654.00	1.97	72.4	167.34	983.77
J-66	211: Zone E	3,730.00	0.66	96	221.99	(N/A)
J-67	211: Zone E	3,782.00	1.97	73.5	169.99	(N/A)
J-68	207: Zone A	3,358.00	0	69	159.48	1,404.21
J-69	210: Zone D	3,630.00	1.97	82.8	191.34	(N/A)



**Tank Report**  
**Scenario: Final Condition (PHD)**

Label	Base Elevation (ft)	Minimum Elevation (ft)	Initial Elevation (ft)	Maximum Elevation (ft)	Diameter (ft)	Outflow (gpm)	Hydraulic Grade (ft)	Net Inflow (gpm)
Upper Tank	3,807	3,808.00	3,822.00	3,823.00	47.53	89.43	3,822.00	-89.43
Lower Tank	3,601.00	3,602.00	3,612.00	3,613.00	12.31	0.00	3,612.00	0
Wellsite Tank	3,351	3,352.00	3,362.00	3,363.00	15.39	0.00	3,362.00	0



**Pump Report**  
**Scenario: Final Condition (PHD)**

Label	Elevation (ft)	Pump Definition	Status	Intake Grade (ft)	Discharge Grade (ft)	Discharge (gpm)	Pump Head (ft)
Lower Pump	3,601	202: Lower	Off	3,612.00	3,821.30	0	0.00
Wellsite Pump	3,351.00	201: Wellsite	Off	3,362.00	3,612.00	0.00	0.00
Upper Pump	3,808	203: Upper	On	3,822.00	3,952.00	7.86	129.99
Fire Pump	3,808	204: Upper Fire	Off	3,822.00	3,952.00	0.00	0



**PRV Report**  
**Scenario: Final Condition (PHD)**

Label	Elevation (ft)	Status (Calculated)	Diameter (in)	Minor Loss	Hydraulic Grade Setting (Initial) (ft)	Pressure Setting (Initial) (psi)	Flow (gpm)	From Hydraulic Grade (ft)	To Hydraulic Grade (ft)	Headloss (ft)	Pressure (To) (psi)	Pressure (From) (psi)
C PRV	3,625	Active	6	6.2	3,717.40	40	70.44	3,821.30	3,717.50	103.8	40	84.9
B PRV (south)	3,520	Active	6	6.2	3,612.40	40.00	22.52	3,717.30	3,612.50	104.77	40	85.3
B PRV (north)	3,520	Active	6	6.2	3,612.40	40.00	26.34	3,717.20	3,612.50	104.68	40	85.3
A PRV (south)	3,425	Active	6	6.2	3,517.40	40.00	7.17	3,612.40	3,517.50	94.94	40	81.1
A PRV (north)	3,425	Active	6	6.2	3,517.40	40.00	18.89	3,612.40	3,517.50	94.94	40	81.1
Trans/C PRV	3,600	Closed	6	6.2	3,692.40	40.00	0	3,821.30	3,717.40	0	50.8	95.8



**Pipe Report**  
Scenario: Interim Condition (MDD)

Label	Scaled Length (ft)	Length (User Defined) (ft)	Is Open?	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-4	665	0.00	TRUE	8	PVC	150	-15.64	0.10	0.01
P-5	1,584.00	0.00	TRUE	8	PVC	150	-17.50	0.11	0.01
P-26	1,098	0.00	TRUE	8	PVC	150	-20.48	0.13	0.01
P-27	448	0.00	TRUE	8	PVC	150	-22.34	0.14	0.01
P-34	690.00	0.00	TRUE	12	PVC	150	10.8	0.03	0.00
P-42	324	0.00	TRUE	8	PVC	150	3.78	0.02	0.00
P-54	2,297	0.00	TRUE	8	PVC	150	-30.92	0.20	0.02
P-56	2,340	0.00	TRUE	8	PVC	150	-30.92	0.20	0.02
P-67	2,052	0.00	TRUE	8	PVC	150	-4.1	0.03	0
P-68	540	0.00	TRUE	8	PVC	150	-4.1	0.03	0.001
P-70	2,149	0.00	TRUE	12	PVC	150	10.05	0.03	0
P-71	4	0.00	TRUE	8	PVC	150	10.8	0.07	0
P-72	58	0.00	TRUE	12	PVC	150	10.8	0.03	0
P-79	344	0.00	TRUE	12	PVC	150	8.56	0.02	0
P-80	627	0.00	TRUE	8	PVC	150	7.82	0.05	0.002
P-81	780	0.00	TRUE	8	PVC	150	-23.45	0.15	0.013
P-82	51	0.00	TRUE	8	PVC	150	-24.57	0.16	0.014
P-83	58	0.00	TRUE	8	PVC	150	-24.57	0.16	0.013
P-84	1,462	0.00	TRUE	8	PVC	150	-26.8	0.17	0.017
P-103	1,217	0.00	TRUE	8	PVC	150	-30.92	0.2	0.022
P-116	528	0.00	TRUE	8	PVC	120	-29.05	0.19	0.03
P-117	252	0.00	TRUE	8	PVC	150	30.92	0.2	0.023
P-118	48	0.00	TRUE	8	PVC	150	-30.92	0.2	0.02
P-119	58	0.00	TRUE	8	PVC	150	30.92	0.2	0.021
P-121	71	0.00	TRUE	8	PVC	150	-30.92	0.2	0.021
P-154	231	0.00	TRUE	4	Ductile Iron	130	-0.31	0.01	0
P-155	996	0.00	TRUE	4	PVC	150	-0.31	0.01	0
P-156	219	0.00	TRUE	4	PVC	150	-0.31	0.01	0
P-157	207	0.00	TRUE	4	Ductile Iron	130	-0.31	0.01	0
P-158	1,061	0.00	TRUE	8	PVC	150	3.04	0.02	0
P-161	164	0.00	TRUE	4	PVC	150	-2.61	0.07	0.007
P-162	827	0.00	TRUE	8	PVC	150	-2.92	0.02	0
P-169	135	0.00	TRUE	8	PVC	150	3.35	0.02	0.002
P-170	411	0.00	TRUE	4	PVC	150	3.35	0.09	0.011



**Junction Report**  
**Scenario: Interim Condition (MDD)**

Label	Zone	Elevation (ft)	Demand (gpm)	Pressure (psi)	Pressure Head (ft)	Fire Flow (Available) (gpm)
J-4	207: Zone A	3,332.00	4.10	80.3	185.49	1,340.74
J-5	208: Zone B	3,440.00	0.74	74.6	172.44	1,302.94
J-6	208: Zone B	3,424.00	1.86	81.5	188.45	1,336.43
J-7	208: Zone B	3,470.00	2.98	61.6	142.46	1,340.45
J-8	208: Zone B	3,516.00	1.12	41.7	96.47	1,339.89
J-9	209: Zone C	3,574.00	2.25	61.3	141.58	1,435.85
J-10	209: Zone C	3,596.00	1.87	51.7	119.60	1,439.53
J-22	208: Zone B	3,502.00	1.86	47.8	110.47	1,340.45
J-25	208: Zone B	3,425.00	0	81.1	187.44	1,302.33
J-26	207: Zone A	3,410.00	1.12	46.5	107.48	1,272.13
J-27	207: Zone A	3,336.00	3.35	78.5	181.48 (N/A)	
J-28	207: Zone A	3,390.00	2.61	55.2	127.48 (N/A)	
J-29	207: Zone A	3,410.00	1.49	46.5	107.49	1,277.91
J-30	207: Zone A	3,402.00	0.74	50	115.48	1,272.13
J-32	210: Zone D	3,720.00	0	44.1	101.95	1,302.30
J-34	210: Zone D	3,628.00	0	83.9	193.9	1,302.31
J-35	207: Zone A	3,415.00	0.74	44.3	102.49	1,291.25
J-37	207: Zone A	3,422.00	0.74	41.3	95.49	1,275.82
J-38	208: Zone B	3,508.00	1.12	45.2	104.49	1,398.62
J-39	209: Zone C	3,524.00	2.23	82.9	191.56	1,436.47
J-41	207: Zone A	3,300.00	0	94.1	217.48 (N/A)	
J-48	212: Facility	3,600.00	0	96	221.87 (N/A)	
J-51	212: Facility	3,600.00	0	50	115.61 (N/A)	
J-52	212: Facility	3,600.00	0	96	221.87 (N/A)	
J-61	207: Zone A	3,360.00	0	68.1	157.48 (N/A)	
J-62	207: Zone A	3,360.00	0	68.1	157.48 (N/A)	
J-63	207: Zone A	3,362.00	0	67.3	155.48	1,272.13
J-64	207: Zone A	3,394.00	0	53.4	123.48	1,272.13
J-68	207: Zone A	3,358.00	0	69	159.48	1,272.13



**Tank Report**  
**Scenario: Interim Condition (MDD)**

Label	Base Elevation (ft)	Minimum Elevation (ft)	Initial Elevation (ft)	Maximum Elevation (ft)	Diameter (ft)	Outflow (gpm)	Hydraulic Grade (ft)	Net Inflow (gpm)
Upper Tank	3,807	3,808.00	3,822.00	3,823.00	47.53	30.92	3,822.00	-30.92



**PRV Report**  
**Scenario: Interim Condition (MDD)**

Label	Elevation (ft)	Status (Calculated)	Diameter (in)	Minor Loss	Hydraulic Grade Setting (Initial) (ft)	Pressure Setting (Initial) (psi)	Flow (gpm)	From Hydraulic Grade (ft)	To Hydraulic Grade (ft)	Headloss (ft)	Pressure (To) (psi)	Pressure (From) (psi)
B PRV (south)	3,520	Active	6	6.2	3,612.40	40.00	24.57	3,715.60	3,612.50	103.07	40	84.6
A PRV (south)	3,425.00	Active	6	6.2	3,517.40	40.00	4.1	3,612.40	3,517.50	94.95	40	81.1
A PRV (north)	3,425	Active	6	6.2	3,517.40	40.00	10.8	3,612.40	3,517.50	94.95	40	81.1
Trans/C PRV	3,600	Active	6	0	3,715.50	50.00	30.92	3,821.90	3,715.60	106.26	50	96



# Fire Flow Report Scenario: Interim Condition (MDD + Fire Flow)

Label	Zone	Fire Flow (Available) (gpm)	Pressure (Residual Lower Limit) (psi)	Pressure (Zone Lower Limit) (psi)	Pressure (Calculated Residual Lower Limit) (psi)	Pressure (Calculated Zone Lower Limit) (psi)	Junction w/Minimum Pressure (Zone)	Velocity of Maximum Pipe (ft/s)	Pipe w/Maximum Velocity
J-4	207: Zone A	1,340.74	20	20	22	20	144: J-37	8.76	181: P-103
J-5	208: Zone B	1,302.94	20	20	20	25.7	33: J-8	8.51	181: P-103
J-6	208: Zone B	1,336.43	20	20	27.1	20.2	27: J-5	8.73	181: P-103
J-7	208: Zone B	1,340.45	20	20	23.3	20	33: J-8	8.75	228: P-118
J-8	208: Zone B	1,339.89	20	20	20.1	26.2	67: J-22	8.75	181: P-103
J-9	209: Zone C	1,435.85	20	20	20.1	20.4	37: J-10	9.36	181: P-103
J-10	209: Zone C	1,439.53	20	20	20	29.5	35: J-9	9.39	181: P-103
J-22	208: Zone B	1,340.45	20	20	21.2	20	33: J-8	8.75	181: P-103
J-25	208: Zone B	1,302.33	20	20	25.7	20.1	27: J-5	8.51	181: P-103
J-26	207: Zone A	1,272.13	20	20	20	20.8	144: J-37	8.32	228: P-118
J-27	207: Zone A	(N/A)	20	20	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
J-28	207: Zone A	(N/A)	20	20	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
J-29	207: Zone A	1,277.91	20	20	25.2	20	144: J-37	8.35	228: P-118
J-30	207: Zone A	1,272.13	20	20	20.7	20	80: J-26	8.32	181: P-103
J-32	210: Zone D	1,302.30	20	20	20	59.9	106: J-34	8.51	111: P-56
J-34	210: Zone D	1,302.31	20	20	36.1	20	99: J-32	8.51	111: P-56
J-35	207: Zone A	1,291.25	20	20	23	20	144: J-37	8.44	181: P-103
J-37	207: Zone A	1,275.82	20	20	20	25.2	80: J-26	8.34	181: P-103
J-38	208: Zone B	1,398.62	20	20	23.5	20	33: J-8	9.12	181: P-103
J-39	209: Zone C	1,436.47	20	20	23.7	20	35: J-9	9.37	181: P-103
J-41	207: Zone A	(N/A)	20	20	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
J-48	212: Facility	(N/A)	20	20	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
J-51	212: Facility	(N/A)	20	20	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
J-52	212: Facility	(N/A)	20	20	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
J-61	207: Zone A	(N/A)	20	20	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
J-62	207: Zone A	(N/A)	20	20	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
J-63	207: Zone A	1,272.13	20	20	30.4	20	80: J-26	8.32	181: P-103
J-64	207: Zone A	1,272.13	20	20	20.4	20	80: J-26	8.32	181: P-103
J-68	207: Zone A	1,272.13	20	20	30.9	20	80: J-26	8.32	181: P-103



**Pipe Report**  
**Scenario: Interim Condition (PHD)**

Label	Scaled Length (ft)	Length (User Defined) (ft)	Is Open?	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-4	665	0.00	TRUE	8	PVC	150	-27.36	0.17	0.02
P-5	1,584.00	0.00	TRUE	8	PVC	150	-30.62	0.20	0.02
P-26	1,098	0.00	TRUE	8	PVC	150	-35.83	0.23	0.03
P-27	448	0.00	TRUE	8	PVC	150	-39.09	0.25	0.03
P-34	690.00	0.00	TRUE	12	PVC	150	18.89	0.05	0.00
P-42	324	0.00	TRUE	8	PVC	150	6.62	0.04	0.00
P-54	2,297	0.00	TRUE	8	PVC	150	-54.12	0.35	0.06
P-56	2,340	0.00	TRUE	8	PVC	150	-54.12	0.35	0.06
P-67	2,052	0.00	TRUE	8	PVC	150	-7.17	0.05	0.002
P-68	540	0.00	TRUE	8	PVC	150	-7.17	0.05	0.001
P-70	2,149	0.00	TRUE	12	PVC	150	17.59	0.05	0.001
P-71	4	0.00	TRUE	8	PVC	150	18.89	0.12	0
P-72	58	0.00	TRUE	12	PVC	150	18.89	0.05	0
P-79	344	0.00	TRUE	12	PVC	150	14.98	0.04	0.001
P-80	627	0.00	TRUE	8	PVC	150	13.68	0.09	0.005
P-81	780	0.00	TRUE	8	PVC	150	-41.05	0.26	0.038
P-82	51	0.00	TRUE	8	PVC	150	-43	0.27	0.043
P-83	58	0.00	TRUE	8	PVC	150	-43	0.27	0.042
P-84	1,462	0.00	TRUE	8	PVC	150	-46.91	0.3	0.048
P-103	1,217	0.00	TRUE	8	PVC	150	-54.12	0.35	0.063
P-116	528	0.00	TRUE	8	PVC	150	-50.84	0.32	0.085
P-117	252	0.00	TRUE	8	PVC	150	54.12	0.35	0.064
P-118	48	0.00	TRUE	8	PVC	150	-54.12	0.35	0.061
P-119	58	0.00	TRUE	8	PVC	150	54.12	0.35	0.063
P-121	71	0.00	TRUE	8	PVC	150	-54.12	0.35	0.066
P-154	231	0.00	TRUE	4	Ductile Iron	130	-0.55	0.01	0
P-155	996	0.00	TRUE	4	PVC	150	-0.55	0.01	0
P-156	219	0.00	TRUE	4	PVC	150	-0.55	0.01	0
P-157	207	0.00	TRUE	4	Ductile Iron	130	-0.55	0.01	0.001
P-158	1,061	0.00	TRUE	8	PVC	150	5.31	0.03	0.001
P-161	164	0.00	TRUE	4	PVC	150	-4.56	0.12	0.019
P-162	827	0.00	TRUE	8	PVC	150	-5.11	0.03	0.001
P-169	135	0.00	TRUE	8	PVC	150	5.86	0.04	0.002
P-170	411	0.00	TRUE	4	PVC	150	5.86	0.15	0.03



**Junction Report**  
**Scenario: Interim Condition (PHD)**

Label	Zone	Elevation (ft)	Demand (gpm)	Pressure (psi)	Pressure Head (ft)	Fire Flow (Available) (gpm)
J-4	207: Zone A	3,332.00	7.17	80.20	185.48	1,320.58
J-5	208: Zone B	3,440.00	1.3	74.6	172.36	1,282.80
J-6	208: Zone B	3,424.00	3.26	81.5	188.37	1,316.37
J-7	208: Zone B	3,470.00	5.21	61.6	142.41	1,318.19
J-8	208: Zone B	3,516.00	1.95	41.7	96.45	1,318.29
J-9	209: Zone C	3,574.00	3.93	61.2	141.54	1,413.12
J-10	209: Zone C	3,596.00	3.28	51.7	119.59	1,416.47
J-22	208: Zone B	3,502.00	3.26	47.8	110.44	1,318.72
J-25	208: Zone B	3,425.00	0	81.1	187.36	1,282.67
J-26	207: Zone A	3,410.00	1.95	46.5	107.48	1,254.01
J-27	207: Zone A	3,336.00	5.86	78.5	181.47	(N/A)
J-28	207: Zone A	3,390.00	4.56	55.2	127.48	(N/A)
J-29	207: Zone A	3,410.00	2.61	46.5	107.48	1,259.27
J-30	207: Zone A	3,402.00	1.3	50	115.48	1,254.01
J-32	210: Zone D	3,720.00	0	44.1	101.85	1,279.07
J-34	210: Zone D	3,628.00	0	83.8	193.71	1,279.11
J-35	207: Zone A	3,415.00	1.3	44.3	102.49	1,272.40
J-37	207: Zone A	3,422.00	1.3	41.3	95.48	1,257.21
J-38	208: Zone B	3,508.00	1.95	45.2	104.48	1,375.86
J-39	209: Zone C	3,524.00	3.91	82.8	191.47	1,412.60
J-41	207: Zone A	3,300.00	0	94.1	217.48	(N/A)
J-48	212: Facility	3,600.00	0	95.9	221.63	(N/A)
J-51	212: Facility	3,600.00	0	50	115.6	(N/A)
J-52	212: Facility	3,600.00	0	95.9	221.63	(N/A)
J-61	207: Zone A	3,360.00	0	68.1	157.48	(N/A)
J-62	207: Zone A	3,360.00	0	68.1	157.48	(N/A)
J-63	207: Zone A	3,362.00	0	67.3	155.48	1,253.19
J-64	207: Zone A	3,394.00	0	53.4	123.48	1,254.01
J-68	207: Zone A	3,358.00	0	69	159.48	1,253.15



**Tank Report**  
**Scenario: Interim Condition (PHD)**

Label	Base Elevation (ft)	Minimum Elevation (ft)	Initial Elevation (ft)	Maximum Elevation (ft)	Diameter (ft)	Outflow (gpm)	Hydraulic Grade (ft)	Net Inflow (gpm)
Upper Tank	3,807	3,808.00	3,822.00	3,823.00	47.53	54.12	3,822.00	-54.12



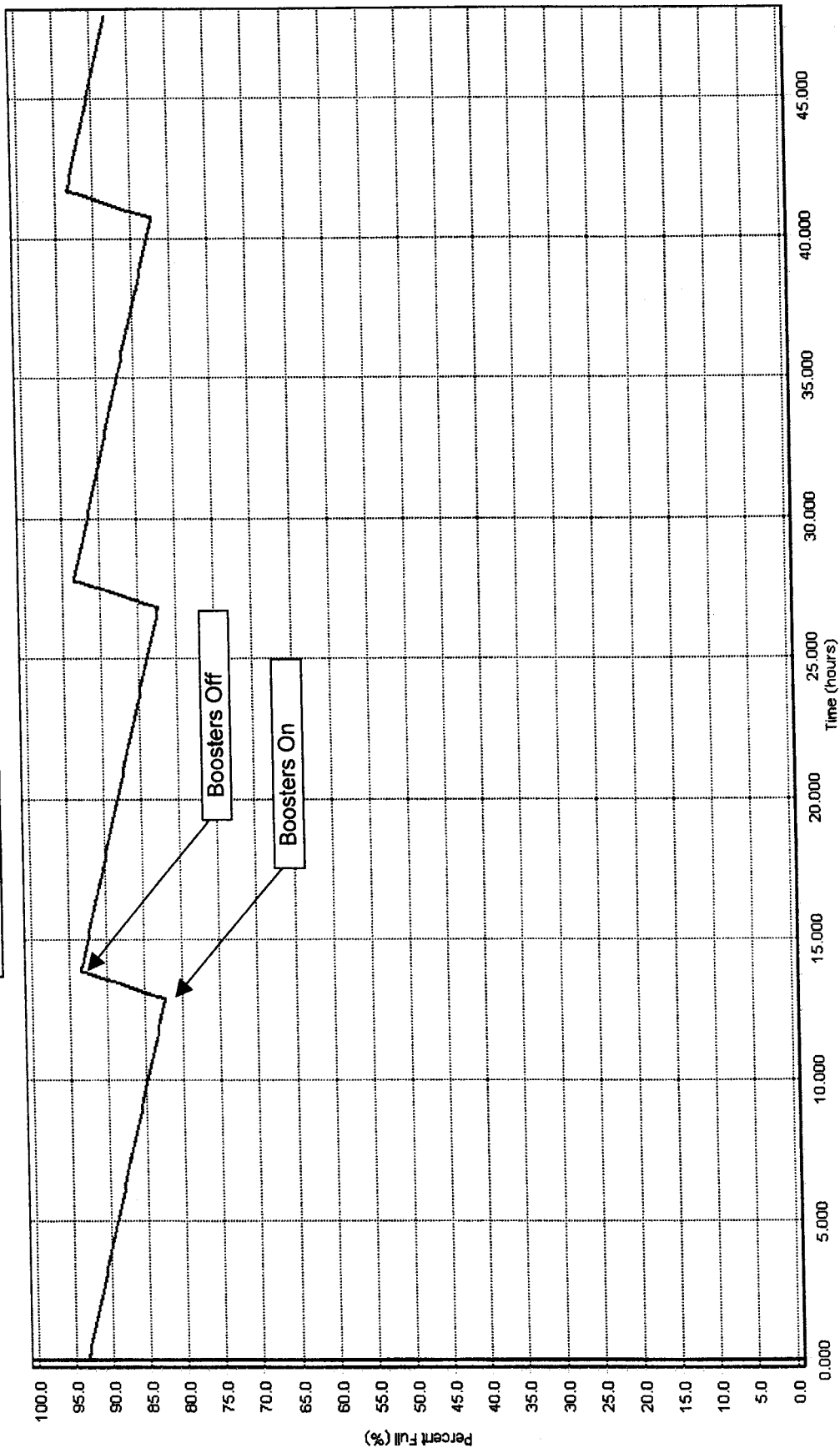
**PRV Report**  
**Scenario: Interim Condition (PHD)**

Label	Elevation (ft)	Status (Calculated)	Diameter (in)	Minor Loss	Hydraulic Grade Setting (Initial) (ft)	Pressure Setting (Initial) (psi)	Flow (gpm)	From Hydraulic Grade (ft)	To Hydraulic Grade (ft)	Headloss (ft)	Pressure (To) (psi)	Pressure (From) (psi)
B PRV (south)	3,520	Active	6	6.20	3,612.40	40.00	43.00	3,715.50	3,612.50	102.98	40	84.6
A PRV (south)	3,425.00	Active	6	6.2	3,517.40	40.00	7.17	3,612.40	3,517.50	94.87	40	81.1
A PRV (north)	3,425	Active	6	6.2	3,517.40	40.00	18.89	3,612.40	3,517.50	94.87	40	81.1
Trans/C PRV	3,600	Active	6	0	3,715.50	50.00	54.12	3,821.60	3,715.60	106.01	50	95.9



# Upper Tank Graph Scenario: Final Condition (ADD)

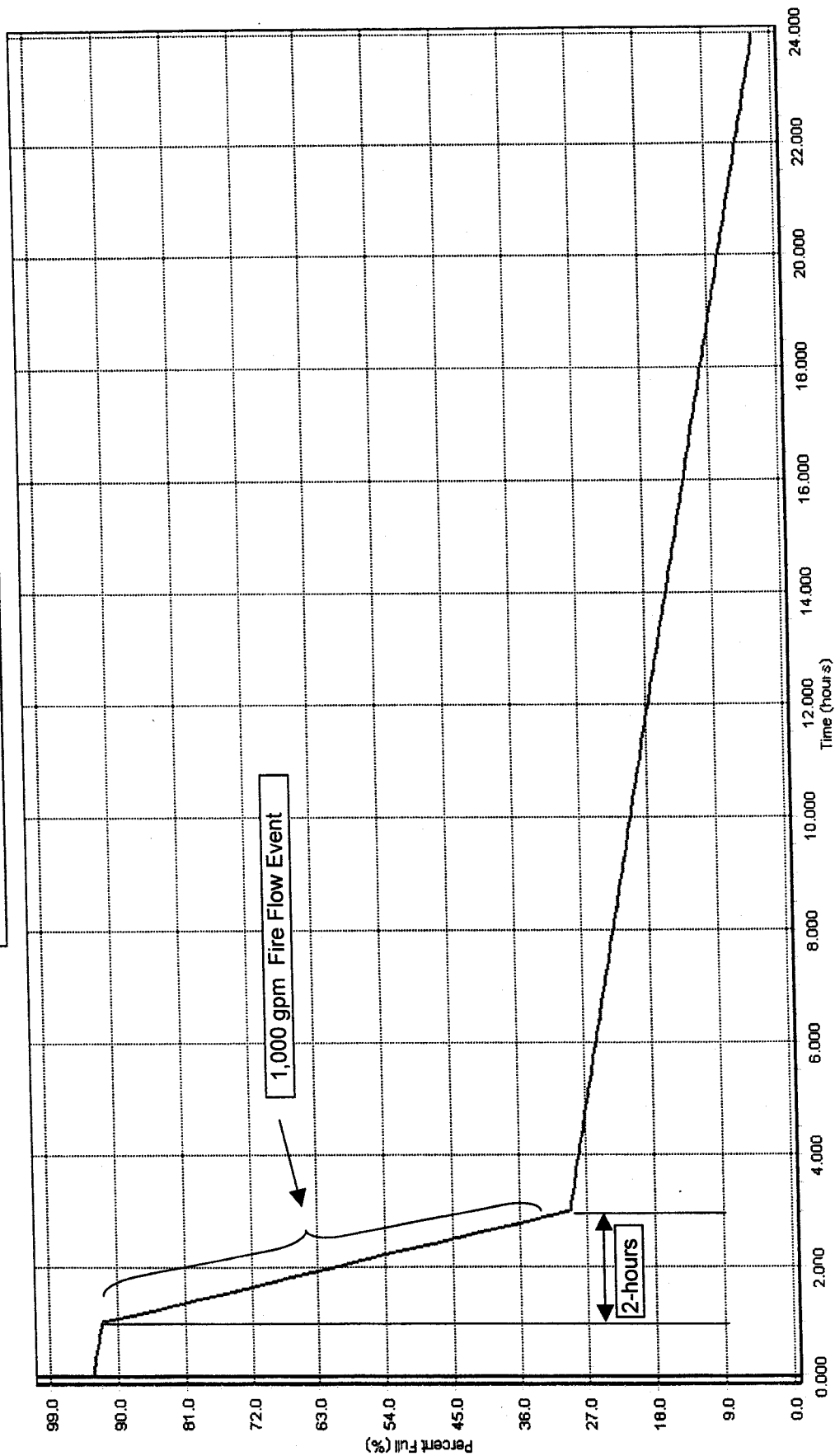
Behavior of Upper Tank During Normal Operations  
Scenario: ADD





# Upper Tank Graph Scenario: Final Condition (PHD + 2-hr Fire Flow)

Behavior of Upper Tank with No Supply  
 Scenario: PHD with 2-hr 1,000 gpm Fire Flow





Appendix D  
Hydrogeologist's Letter



**CHUCK M. DICKENS**  
CONSULTING HYDROGEOLOGIST



May 16, 2007

Western Associates Development Co., LLC  
Attn: Mr. Patrick Nikitenko  
2102 N. Country Club Road  
Suite 4  
Tucson, Arizona 85716

LICENSED GEOLOGIST  
ARIZONA 14510  
CALIFORNIA 3647

12330 E. SNYDER ROAD  
TUCSON, ARIZONA 85749  
PHONE / FAX: 520-749-4124  
PHONE: 520-731-6111

Re: Green Valley Project ( Elephant Head Area ): Preliminary Well Testing  
Results.

Dear Patrick:

Pursuant to your request, this letter has been prepared to provide a brief summary of the results of the recent test pumping of the two supply / test wells constructed for the above captioned project located in Green Valley and northwest of the Elephant Head area. Both wells were test pumped during early May 2007. Water samples were collected from both wells and submitted to Turner Laboratories in Tucson for analyses of the ADEQ *new source approval* list of chemical constituents as required for prospective public supply wells. The lab results for these well samples should be available no later than July 1, 2007.

**Well No. 1**

Well No.1 was completed to an approximate depth of 700 feet with six inch diameter steel casing. The static depth to groundwater in the well was measured at about 363 to 364 feet. The well was test pumped at a rate of about 150 gallons per minute ( gpm ) for a period 48 hours on May 1 thru May 3, 2007. The stabilized pumping level depth measured at the end of the test was 422.25 feet. Total water level decline during the test was 59.2 feet. The specific capacity of the well was calculated to be 2.53 gpm/ft (gallons per minute per foot of water level decline).

Once the well was shut-down, the rise of water levels in the well ( recovery ) were monitored for a period of two hours. After two hours, the water level in the well had already risen to a level of 363.5 feet indicating a percent recovery of about 99.2 percent.

Water level recovery data was utilized to calculate a moderate aquifer transmissivity of about 25,000 gpd/ft.

Also during the pumping of well no. 1, water levels in well no. 2 located about 700 feet east of well no. 1 were routinely monitored. After pumping well no. 1 for 24 hours at a



rate of 150 gpm, the total water level decline in well no. 2 was only 0.80 feet. After 48 hours of pumping well no. 1, the total drawdown at well no. 2 was measured at 0.90 feet.

The temperature of groundwater pumped from well no. 1 was measured at 80.2 degrees F. No arsenic was reported in water samples collected from well no. 1. Fluoride was detected at a low concentration of 0.24 mg/l.

#### Well No. 2

Well no. 2 was completed to a depth of about 800 feet with eight inch diameter steel casing. The static depth to groundwater in the well was measured at 412.25 feet. Well no. 2 was test pumped at a rate of about 150 gpm for a period of 24 hours on May 9 and 10, 2007. The stabilized pumping level measured at the end of the test was 458.3 feet, indicating a total water level decline of 46.05 feet. The specific capacity of well no. 2 was calculated to be about 3.26 gpm/ft.

Following the shut-down of well no. 2, the rise of water levels in the well were monitored for a period of about 100 minutes. After 100 minutes of recovery, water levels had already risen to a level of 413.12 feet, indicating a percent recovery of about 98.1 percent.

Water level recovery data was utilized to calculate a moderate aquifer transmissivity value of about 21,500 gpd/ft. This value is slightly lower but comparable to the value calculated at well no. 1 ( 25,000 gpd/ft ).

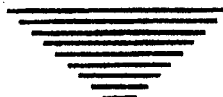
Also, during the test pumping of well no. 2 water levels in well no. 1 were routinely measured. After 24 hours of pumping well no. 2 at a rate of about 150 gpm, the total water level decline in well no. 1 was measured at about 0.79 feet.

The temperature of groundwater pumped from well no. 2 was measured at 78.4 degrees F.

#### SUMMARY

A preliminary evaluation of the data compiled during the test pumping of well no. 1 and no. 2 indicate the following.

- Well no. 1 will readily support a pumping rate of 150 gpm. The production rate of this well will be limited to about 150 gpm due to the diameter of the casing ( six inches ) and the size of the pump unit that can be installed in the well. I would suggest eventually re-installing the pump unit purchased to test pump both wells back into well no. 1 as a permanent pump unit for the well.
- Well no. 2 will probably support a pumping rate approaching 250 gpm. A minimum 40 hp pump motor unit would be required to produce upwards of 250 gpm from well no. 2.





- Data compiled during the test pumping of both wells suggests that the aquifer system beneath the vicinity of the property would readily support the water supply requirements of upwards of 600 single family residential units.
- The two current supply wells should be capable of supporting upwards of 350 single family residential units. In order to serve upwards of 600 homes a third well would eventually be required to ensure the capability of meeting *peak day demand* with one of the wells out of service. This is typically an ADEQ requirement for eventual permitting of public water systems.

If you have any questions or wish further discussion of my preliminary interpretation of the recent test pumping results for the two project test / supply wells please contact me. Once we have received the lab reports for the well - water samples, the hydrology report to support the ADWR assured water supply application should be completed by early July.

Respectfully Submitted,



Chuck M. Dickens





Appendix E  
Quantity Take Off / Cost Estimate



# **Ridgeline Estates Water Distribution System Boosters and Pumps**

**Well Capacities**

Well	Capacity (gpm)
Well No. 1	150
Well No. 2	250
Total	400

**Pump Capacities**

	Static Head (ft)	Flow Rate (gpm)	Static Suction Head (ft)	Vapor Pressure Head (ft)	Atmospheric Pressure Head (ft)	NPSHa	Pump Type	Speed	Power HP
Well-Site #1 Booster	251	334	1	0.83	32.3	32.47	Goulds 3655 Group M 2.5x3-9	3500 rpm	30
Well-Site #2 Booster	251	334	1	0.83	32.3	32.47	Goulds 3655 Group M 2.5x3-9	3500 rpm	30
Lower #1 Booster	221	334	1	0.83	32.3	32.47	Goulds 3655 Group M 2.5x3-9	3500 rpm	25
Lower #2 Booster	221	334	1	0.83	32.3	32.47	Goulds 3655 Group M 2.5x3-9	3500 rpm	25
Upper #1 Service Pump	120	350	10	0.83	32.3	41.47	Goulds 3655 Group M 2.5x3-11	1750 rpm	15
Upper #2 Service Pump	120	350	10	0.83	32.3	41.47	Goulds 3655 Group M 2.5x3-11	1750 rpm	15
Upper Fire Pump	120	1050	10	0.83	32.3	41.47	Goulds 3655 Group M 4x6-11H	1750 rpm	35

Pumps listed are those that best fit head/capacity requirements from Goulds Pumps website.



# Ridgeline Estates Water Distribution System Cost Breakdown

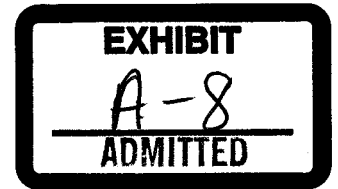
Component	Unit	Amount	Unit Cost	Subtotal	Notes
4" PVC	Feet	3,174		0	
6" PVC	Feet	2,293		0	
8" PVC	Feet	37,868		0	0 15,161 ft of transmission main plus 21707 ft distribution main plus 1,000 feet from Well #1
12" PVC	Feet	3,241		0	
4" DIP	Feet	438		0	0 10' per hydrant lateral
6" DIP	Feet	920		0	
8" DIP	Feet	0		0	
12" DIP	Feet	0		0	
8" Steel Facility Piping	Feet	300		0	0 Assume 100 ft per facility
Isolation Valves	Each	188		0	0 Max 800' separation, 2 at tees, 3 at crosses, 1 per hydrant
6" Pressure Reducing Valve	Each	6		0	0 6" valves on 8" mains with reducers
8" Pressure Reducing Valve	Each	0		0	
4X 8 Reduction	Each Location	6		0	
6 X 8 Reducer	Each	14		0	
8 X 12 Reducer	Each	2		0	
6X 12 Reduction	Each Location	2		0	0 Reduce to 6 inch PRV on the 12 inch main ( Zone A) on each side of valve
4" Tees	Each	0		0	0 Include 90's 45's and 22.5's
4" Elbows	Each	2		0	
6" Tees	Each	3		0	0 Include 90's 45's and 22.5's
6" Elbows	Each	1		0	
8" Tees	Each	19		0	0 Include 90's 45's and 22.5's
8" Elbows	Each	30		0	
12" Tees	Each	0		0	0 Include 90's 45's and 22.5's
12" Elbows	Each	2		0	
4 X 4 cross	Each	0		0	
6 X 6 cross	Each	0		0	
8 X 8 cross	Each	0		0	
12 X 12 Cross	Each	0		0	
Upper Tank	Gallons	181,200		0	0 Shows volume required. Nominal Tank Volume =213,991 (From BH Tanks website)
Lower Tank	Gallons	3,400		0	0 Shows volume required. Nominal Tank Volume =6,008 (From BH Tanks website)
Well-site Tank	Gallons	12,240		0	0 Shows volume required. Nominal Tank Volume =16,688 (From BH Tanks website)
4" Check Valve	Each	0		0	
6" Check Valve	Each	0		0	
8" Check Valve	Each	3		0	
12" Check Valve	Each	0		0	
Well-site Booster Pump	Each	2		0	0 See pump worksheet for model. Include motors, brackets, mounts, hardware.
Lower Booster Pump	Each	2		0	0 See pump worksheet for model. Include motors, brackets, mounts, hardware.
Upper Duty Pump	Each	2		0	0 See pump worksheet for model. Include motors, brackets, mounts, hardware.
Upper Fire Pump	Each	1		0	0 See pump worksheet for model. Include motors, brackets, mounts, hardware.
5000 gal Hydro-pneumatic Tank	Each	1		0	
Air Compressor	Each	1		0	0 2 should be installed at booster/pumping stations
In-line pressure gages	Each	6		0	0 1 should be installed at booster/pumping stations
In-line flow meters/totalizers	Each	3		0	0 Must include operational on/off signals from 3 tank sites. Wells will not alternate but will run together. Pumps/boosters will alternate.
Electrical	Lump Sum				



# Ridgeline Estates Water Distribution System Cost Breakdown

Structures	Lump Sum			Canopies or enclosures for pumps and valves? Fences, gates, foundations.
2" air valves	Each	5		0
Mechanical Restraints	Each			0
Vertical Bands 45/22.5 degrees	Each	20		0
Drain Valve Assemblies	Each	9		0
Hydrants	Each	87		0
Meters	Each	138		0
Contingency/miscellaneous	Additional	Additional	20%	0
Total				0





# **Exhibit A-8**

**(Analysis of Estimated Water System  
Construction Cost)**

**Ridgeline Water Company, L.L.C.  
Docket No. W-20589A-08-0173**



Ridgeline Estates Water Company  
Plant  
Projected Years

APPENDIX H  
Page 1

Line No.	Account	Description	AIAC Spread	Depreciation Rate	Estimate	Engineering Permits, Etc.	Gross Amt	Additions	Depreciation	Balance	ADD Balance
1	301	Organization		0.00%	-	-	-	-	-	-	-
2	302	Franchises		0.00%	43,788	-	43,788	43,788	-	43,788	-
3	303	Land and Land Rights		0.00%	152,004	-	152,004	152,004	-	152,004	-
4	304	Structures and Improvements		3.33%	22,000	-	22,000	22,000	366	22,000	366
5	305	Collecting and Impounding Rese		2.50%	-	-	-	-	-	-	-
6	306	Lake, River and Other Intakes		2.50%	-	-	-	-	-	-	-
7	307	Wells and Springs		3.33%	235,856	-	235,856	235,856	3,927	235,856	3,927
8	308	Infiltration Galleries and Tun		6.67%	-	-	-	-	-	-	-
9	309	Supply Mains		2.00%	-	-	-	-	-	-	-
10	310	Power Generation Equipment		5.00%	-	-	-	-	-	-	-
11	311	Pumping Equipment		12.50%	89,870	-	89,870	89,870	5,617	89,870	5,617
12	312	Water Treatment Equipment		5.00%	-	-	-	-	-	-	-
13	313	Distribution Reservoirs and St		2.00%	344,410	-	344,410	344,410	8,610	344,410	8,610
14	314	Transmission and Distribution		2.00%	2,702,753	-	2,702,753	2,702,753	27,028	2,702,753	27,028
15	315	Transmission and Distribution		2.00%	-	-	-	-	-	-	-
16	316	Services		3.33%	103,143	-	103,143	103,143	1,717	103,143	1,717
17	317	Meters and Meter Installations		3.33%	33,660	-	33,660	33,660	560	33,660	560
18	318	Hydrants		2.00%	191,400	-	191,400	191,400	1,914	191,400	1,914
19	319	Backflow Prevention Devices		6.67%	-	-	-	-	-	-	-
20	320	Other Plant and Miscellaneous		6.67%	-	-	-	-	-	-	-
21	321	Office Furniture and Equipment		6.67%	-	-	-	-	-	-	-
22	322	Transportation Equipment		20.00%	-	-	-	-	-	-	-
23	323	Stores Equipment		4.00%	-	-	-	-	-	-	-
24	324	Tools, Shop and Garage Equipme		5.00%	-	-	-	-	-	-	-
25	325	Laboratory Equipment		10.00%	-	-	-	-	-	-	-
26	326	Power Operated Equipment		5.00%	-	-	-	-	-	-	-
27	327	Communication Equipment		10.00%	-	-	-	-	-	-	-
28	328	Miscellaneous Equipment		10.00%	-	-	-	-	-	-	-
29	329	Other Tangible Plant		10.00%	9,839	-	9,839	9,839	492	9,839	492
30	330										
31	331										
32	332										
33	333										
34	334										
35	335										
36	336										
37	337										
38	338										
39	339										
40	340										
41	341										
42	342										
43	343										
44	344										
45	345										
46	346										

Totals \$ 3,928,723 \$ - \$ 3,928,723 \$ 3,928,723 \$ 50,232 \$ 3,928,723 \$ 50,232

Composite Rate with 1/2 yr convention

1.28%

Licenses, Taxes, Permits 0%  
Engineering and Contingency 20%  
Total



4	0	1
5		5



Line No.	Account	Description	AIAC Spread	Depreciation Rate	Estimate	Engineering Permits, Etc.	Year				AID Balance
							Gross Amt	Additions	Depreciation	Balance	
1	301	Organization		0.00%	\$ -	-	\$ -	-	\$ -	-	\$ -
2	302	Franchises		0.00%	-	-	-	-	43,788	-	-
3	303	Land and Land Rights		0.00%	-	-	-	-	152,004	-	-
4	304	Structures and Improvements		3.33%	-	-	-	733	22,000	1,832	1,832
5	305	Collecting and Impounding Rese		2.50%	-	-	-	-	-	-	-
6	306	Lake, River and Other Intakes		2.50%	-	-	-	-	-	-	-
7	307	Wells and Springs		3.33%	-	-	-	7,854	235,856	19,635	19,635
8	308	Infiltration Galleries and Tun		6.67%	-	-	-	-	-	-	-
9	309	Supply Mains		2.00%	-	-	-	-	-	-	-
10	310	Power Generation Equipment		5.00%	-	-	-	-	-	-	-
11	311	Pumping Equipment		12.50%	-	-	-	11,234	89,870	28,084	28,084
12	312	Water Treatment Equipment		5.00%	-	-	-	-	-	-	-
13	313	Distribution Reservoirs and St		5.00%	-	-	-	-	-	-	-
14	314	Transmission and Distribution		2.00%	-	-	-	17,221	344,410	43,051	43,051
15	315	Transmission and Distribution		2.00%	-	-	-	54,055	2,702,753	135,138	135,138
16	316	Services		3.33%	-	-	-	-	-	-	-
17	317	Meters and Meter Installations		3.33%	-	-	-	3,435	103,143	8,587	8,587
18	318	Hydrants		2.00%	-	-	-	1,121	33,660	2,802	2,802
19	319	Backflow Prevention Devices		6.67%	-	-	-	3,828	191,400	9,570	9,570
20	320	Other Plant and Miscellaneous		6.67%	-	-	-	-	-	-	-
21	321	Office Furniture and Equipment		6.67%	-	-	-	-	-	-	-
22	322	Transportation Equipment		20.00%	-	-	-	-	-	-	-
23	323	Stores Equipment		4.00%	-	-	-	-	-	-	-
24	324	Tools, Shop and Garage Equipme		5.00%	-	-	-	-	-	-	-
25	325	Laboratory Equipment		10.00%	-	-	-	-	-	-	-
26	326	Power Operated Equipment		5.00%	-	-	-	-	-	-	-
27	327	Communication Equipment		10.00%	-	-	-	-	-	-	-
28	328	Miscellaneous Equipment		10.00%	-	-	-	-	-	-	-
29	329	Other Tangible Plant		10.00%	-	-	-	984	9,839	2,460	2,460
30	330	Totals			\$ -	\$ -	\$ -	\$ -	\$ 100,463	\$ 3,928,723	\$ 251,158
31	331	Composite Rate with 1/2 yr convention							2.56%		
32	332	Licenses, Taxes, Permits	0%		\$ -	-	-	-	-	-	-
33	333	Engineering and Contingency	20%		\$ -	-	-	-	-	-	-
34	334	Total			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -



Ridgeline Estates Water Company  
Plant  
Projected Years

APPENDIX H  
Page 4

Line No.	Account	Description	AVAC Spread	Depreciation Rate	Estimate	Engineering Permits, Etc.	Gross Amt	Additions	Depreciation	Balance	AD Balance
1	2	3	4	5	6	7	8	9	10	11	12
301	Organization	Franchises		0.00%	\$ -	-	-	-	-	-	-
302	Land and Land Rights			0.00%	-	-	-	-	-	43,788	-
303	Structures and Improvements			0.00%	-	-	-	-	-	152,004	-
304	Collecting and Impounding Rese			3.33%	-	-	-	-	793	22,000	2,564
305	Lake, River and Other Intakes			2.50%	-	-	-	-	-	-	-
306	Wells and Springs			2.50%	-	-	-	-	-	-	-
307	Infiltration Galleries and Tun			3.33%	-	-	-	-	7,854	235,856	27,489
308	Supply Mains			6.67%	-	-	-	-	-	-	-
309	Power Generation Equipment			2.00%	-	-	-	-	-	-	-
310	Pumping Equipment			5.00%	-	-	-	-	-	-	-
311	Water Treatment Equipment			12.50%	-	-	-	-	11,234	89,870	39,318
312	Distribution Reservoirs and St			5.00%	-	-	-	-	-	-	-
313	Transmission and Distribution			5.00%	-	-	-	-	17,221	344,410	60,272
314	Transmission and Distribution			2.00%	-	-	-	-	54,055	2,702,753	189,193
315	Services			2.00%	-	-	-	-	-	-	-
316	Meters and Meter Installations			3.33%	-	-	-	-	3,435	103,143	12,021
317	Hydrants			3.33%	-	-	-	-	1,121	33,660	3,923
318	Backflow Prevention Devices			2.00%	-	-	-	-	3,828	191,400	13,398
319	Other Plant and Miscellaneous			6.67%	-	-	-	-	-	-	-
320	Office Furniture and Equipment			6.67%	-	-	-	-	-	-	-
321	Transportation Equipment			20.00%	-	-	-	-	-	-	-
322	Stores Equipment			4.00%	-	-	-	-	-	-	-
323	Tools, Shop and Garage Equipme			5.00%	-	-	-	-	-	-	-
324	Laboratory Equipment			10.00%	-	-	-	-	-	-	-
325	Power Operated Equipment			5.00%	-	-	-	-	-	-	-
326	Communication Equipment			10.00%	-	-	-	-	-	-	-
327	Miscellaneous Equipment			10.00%	-	-	-	-	-	-	-
328	Other Tangible Plant			10.00%	-	-	-	-	984	9,839	3,444
Totals					\$ -	-	-	-	\$ -	\$ -	\$ -
Composite Rate with 1/2 yr convention									\$ 100,463	\$ 3,928,723	\$ 351,622
											2.56%
Licenses, Taxes, Permits				0%	\$ -	-	-	-	-	-	-
Engineering and Contingency				20%	\$ -	-	-	-	-	-	-
Total					\$ -	-	-	-	-	-	-



Ridgeline Estates Water Company  
Plant  
Projected Years

APPENDIX H  
Page 5

Line No.	Account	Description	AIAC Spread	Depreciation Rate	Estimate	Engineering Permits, Etc.	Gross Am't	Additions	Depreciation	Balance	A/D Balance
1	2	3	4	5	6	7	8	9	10	11	12
301	Organization			0.00%	\$ -	-	-	-	-	-	-
302	Franchises			0.00%	-	-	-	-	-	43,788	-
303	Land and Land Rights			0.00%	-	-	-	-	-	152,004	-
304	Structures and Improvements			3.33%	-	-	-	-	733	22,000	3,297
305	Collecting and Impounding Rese			2.50%	-	-	-	-	-	-	-
306	Lake, River and Other Intakes			2.50%	-	-	-	-	-	-	-
307	Wells and Springs			3.33%	-	-	-	-	7,854	235,856	35,343
308	Infiltration Galleries and Tun			6.67%	-	-	-	-	-	-	-
309	Supply Mains			2.00%	-	-	-	-	-	-	-
310	Power Generation Equipment			5.00%	-	-	-	-	-	-	-
311	Pumping Equipment			12.50%	-	-	-	-	11,234	89,870	50,552
320	Water Treatment Equipment			5.00%	-	-	-	-	-	-	-
330	Distribution Reservoirs and St			5.00%	-	-	-	-	17,221	344,410	77,492
331	Transmission and Distribution			2.00%	-	-	-	-	54,055	2,702,753	243,248
333	Services			2.00%	-	-	-	-	-	-	-
334	Meters and Meter Installations			3.33%	-	-	-	-	3,435	103,143	15,456
335	Hydrants			3.33%	-	-	-	-	1,121	33,660	5,044
336	Backflow Prevention Devices			2.00%	-	-	-	-	3,828	191,400	17,226
339	Other Plant and Miscellaneous			6.67%	-	-	-	-	-	-	-
340	Office Furniture and Equipment			6.67%	-	-	-	-	-	-	-
341	Transportation Equipment			20.00%	-	-	-	-	-	-	-
342	Stores Equipment			4.00%	-	-	-	-	-	-	-
343	Tools, Shop and Garage Equipme			5.00%	-	-	-	-	-	-	-
344	Laboratory Equipment			10.00%	-	-	-	-	-	-	-
345	Power Operated Equipment			5.00%	-	-	-	-	-	-	-
346	Communication Equipment			10.00%	-	-	-	-	-	-	-
347	Miscellaneous Equipment			10.00%	-	-	-	-	-	-	-
348	Other Tangible Plant			10.00%	-	-	-	-	984	9,839	4,428
Totals					\$ -	-	\$ -	\$ -	\$ 100,463	\$ 3,928,723	\$ 452,085
Composite Rate with 1/2 yr convention											2.56%
Licenses, Taxes, Permits				0%	\$ -	-					
Engineering and Contingency				20%	\$ -	-					
Total					\$ -	-					





# **Exhibit A-9**

**(Proposed Rates and Charges)**

**Ridgeline Water Company, L.L.C.**  
**Docket No. W-20589A-08-0173**



**Ridgeline Estates Water Company  
WATER TARIFF SCHEDULE**

APPENDIX J  
Page 1  
Prepared by: Bourassa

**PROPOSED RATES**

**LINE  
NO.**

	<u>METER SIZE</u>	<u>AWWA Factor</u>	<u>MONTHLY MINIMUM</u>	<u>GALLONS IN MINIMUM</u>
1				
2				
3	MONTHLY MINIMUMS:			
4	5/8 x 3/4 And	1.00	\$ 105.50	-
5	3/4	1.50	\$ 158.25	-
6	1	2.50	\$ 263.75	-
7	1 1/2	5.00	\$ 527.50	-
8	2	8.00	\$ 844.00	-
9	3	16.00	\$ 1,688.00	-
10	4	25.00	\$ 2,637.50	-
11	6	50.00	\$ 5,275.00	-
12				
13	COMMODITY CHARGE PROPOSED RATES:			
14				
15	<u>All Meter Sizes and Classes, except Standpipe</u>			
16	Charge per 1,000 gallons for usage		All gallons	\$ 5.00
17				
18				
19	Standpipe or bulk water per 1,000 gallons		All gallons	\$ -
20				
21				
22				
23				



**Ridgeline Estates Water Company  
WATER TARIFF SCHEDULE  
STATEMENT OF CHARGES**

APPENDIX J  
Page 2  
Prepared by: Bourassa

LINE  
NO.

1	A. Establishment of Service per Rule R14-2-403.D	<u>Proposed</u> \$ 25.00
2	Establishment of Service, after hours	\$ 40.00
3	per rule R14-2-403.D.2	
4	B. Re-establishment of Service per Rule 14-2-403.D	see (a)
5	C. Reconnection of service per Rule R14-2-403.D.1	\$ 25.00
6	D. Charge for moving meter at customer request per	
7	Rule R14-2-405.B.5	@ Cost
8	E. After hours service charge, per hour, R14-2-403.D	\$ 40.00
9	F. Minimum Deposit per Rule R-14-2-403.B	
10	H. Meter Reread per Rule R14-2-408	\$ 15.00
11	I. Charge for NSF Check per Rule R14-2-409.F.1	\$ 15.00
12	J. Late payment charge for delinquent bills	
13	as defined in Rule R14-2-409.C.1	1.50%
14	K. Deferred Payment Finance Charge, R14-2-409.G	1.50%
15	L. Service Line and Meter Installation per R14-12-405.B	

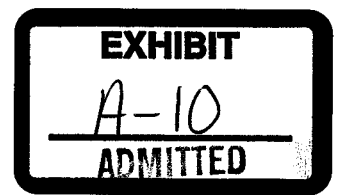
		<u>Service Line</u>		<u>Meter</u>		<u>Total</u>
17	5/8 x 3/4 inch	\$ 385	\$	135	\$	520.00
18	3/4 inch	\$ 385	\$	215	\$	600.00
19	1 inch	\$ 435	\$	255	\$	690.00
20	1 1/2 inch	\$ 470	\$	465	\$	935.00
21	2 Inch Turbo	\$ 630	\$	965	\$	1,595.00
22	2 Inch Compound	\$ 630	\$	1,690	\$	2,320.00
23	3 inch Turbo	\$ 805	\$	1,470	\$	2,275.00
24	3 Inch Compound	\$ 845	\$	2,265	\$	3,110.00
25	4 Inch Turbo	\$ 1,170	\$	2,350	\$	3,520.00
26	4 Inch Compound	\$ 1,230	\$	3,245	\$	4,475.00
27	6 Inch Turbo	\$ 1,730	\$	4,545	\$	6,275.00
28	6 Inch Compound	\$ 1,770	\$	6,280	\$	8,050.00

29		
30	M. Main Extension and additional facilities agreements,	
31	per Rule R14-2-406.B	@ COST (b)
32	N. All Revenue related taxes will be charged customers.	
33		

**RULES AND REGULATIONS**

- \* The Company has adopted the Rules and Regulation established by the Commission as the basis for its operating procedures. AAC R14-204-01 Through ACC R14-2-411 will be controlling of Company procedures, unless specific Commission Orders provide otherwise.
- (a) Monthly minimum times months off the system
- (b) Cost to include parts, labor, overhead, and all applicable taxes, including income tax.
- (c) If meter is reading correct per rule.





# **Exhibit A-10**

**(Estimated Annual Number of  
Customers, and Associated Operating  
Revenues and Expenses)**

**Ridgeline Water Company, L.L.C.  
Docket No. W-20589A-08-0173**



Ridgeline Estates Water Company  
Projected Statements of Income  
For the 12 Months Ended

APPENDIX K  
Page 1

Line No.	Description	Cost Per	Minimum	Year				
				1	2	3	4	5
1				\$ 34,153	\$ 100,759	\$ 167,365	\$ 233,971	\$ 266,424
2	Metered Water Revenues(g)			\$ 34,153	\$ 100,759	\$ 167,365	\$ 233,971	\$ 266,424
3	Unmetered Water Revenues							
4	Other Water Revenues							
5	Total estimated Revenues			\$ 34,153	\$ 100,759	\$ 167,365	\$ 233,971	\$ 266,424
6	Variable Expenses							
7	Pumping Power (per 1,000 gallons)(b)	0.40	per 1,000 gals	942	2,912	4,999	7,209	8,486
8	Purchased Water							
9	Repairs & Maint (a)(b)	0.25	/month/customer	53	158	271	390	459
10	Gen. Insurance (a)(b)	0.80	/month/customer	1,500	1,545	1,591	1,639	1,688
11	Water Treatment & Testing (d)(b)	0.10	/1,000 gallon	1,000	1,030	1,250	1,802	2,122
12	Billing, Postage, Operations (a)(b)	16.00	/month/customer	15,000	15,450	17,314	24,967	29,389
13				\$ 18,495	\$ 21,095	\$ 25,425	\$ 36,007	\$ 42,144
14	Other Expenses							
15	Depreciation net of Amortization of CIAC (h)			50,232	100,463	100,463	100,463	100,463
16	Office (b)	\$ 1,000		1,000	1,030	1,093	1,194	1,344
17	Legal & Accounting (b)	\$ 2,500		2,500	2,575	2,732	2,985	3,360
18	Miscellaneous Expenses (b) (e)	\$ 1,200		1,200	1,236	1,311	1,433	1,613
19	Income Taxes							
20	Property Taxes (f)			1,972	3,183	5,564	9,032	11,733
21		See Property Tax						
22	Total Other Expense			\$ 56,903	\$ 108,487	\$ 111,163	\$ 115,107	\$ 118,512
23								
24	Total Operating Expenses			\$ 75,398	\$ 129,582	\$ 136,588	\$ 151,114	\$ 160,657
25	Operating income (loss)			\$ (41,245)	\$ (28,823)	\$ 30,777	\$ 82,857	\$ 105,767
26	Less:							
27	Interest (Expense)Income on Work. Cap. (c)							
28	Interest Expense Long-term Debt (c)							
29	Net Income			375	890	2,306	5,846	10,479
30				\$ (40,870)	\$ (27,932)	\$ 33,083	\$ 88,502	\$ 116,246
31								
32	(a) Per customer per month							
33	(b) Annual Inflation of:							
34	(c) If Applicable	3.00%						
35	(d) ADEQ based on per 1,000 gallons sold							
36	(e) Miscellaneous Expenses of \$100 per month							
37	(f) Property Tax Calculation (Appendix U, page 5)							
38	(g) Revenues (see Appendix K, page 2)							
39	(h) Depreciation and amortization (see Appendix H, pages 1 to 1 and Appendix I, page 1.3)							
40								
41								



Ridgeline Estates Water Company  
Schedule of Projected Revenues  
For the Years Ended

APPENDIX K  
Page 2

Line No.		1	2	3	4	5
1						
2						
3						
4	Residential					
5	5/8 inch	\$ 34,153	\$ 100,759	\$ 167,365	\$ 233,971	\$ 266,424
6	3/4 inch					
7	1 inch					
8	2 inch					
9	3 inch					
10	Commercial					
11	5/8 inch					
12	1 inch					
13	2 inch					
14	3 inch					
15						
16						
17	Irrigation					
18	3/4 inch					
19	1 inch					
20	2 inch					
21	3 inch					
22	School					
23	Construction Water					
24						
25	Total	\$ 34,153	\$ 100,759	\$ 167,365	\$ 233,971	\$ 266,424
26						
27						
28						
29						
30						
31						
32						
33						
34						
35						
36						
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42						
43						
44						

See supporting schedules (Appendix U, pages 2.2, 2.3, 2.5 to 2.12)



Ridgeline Estates Water Company  
Customer Counts  
For Projected Years Ended

APPENDIX K  
Page 3

Line No.	Year Ended	1	2	3	4	5
1	Residential					
2	5/8 Inch					
3	3/4 Inch					
4	1 Inch					
5	2 Inch					
6	3 Inch					
7	Commercial					
8	5/8 Inch					
9	3/4 Inch					
10	1 Inch					
11	2 Inch					
12	3 Inch					
13	Irrigation					
14	5/8 Inch					
15	3/4 Inch					
16	1 Inch					
17	2 Inch					
18	3 Inch					
19	Total	34	68	102	136	136
20						
21						
22						
23	1/2 Year Convention					
24	Year Ended					
25	Residential					
26	5/8 Inch					
27	3/4 Inch					
28	1 Inch					
29	2 Inch					
30	3 Inch					
31	Commercial					
32	5/8 Inch					
33	3/4 Inch					
34	1 Inch					
35	2 Inch					
36	3 Inch					
37	Irrigation					
38	5/8 Inch					
39	3/4 Inch					
40	1 Inch					
41	2 Inch					
42	3 Inch					
43	Total	17.00	51.00	85.00	119.00	136.00
44						



Ridgeline Estates Water Company  
Gallons Sold (1,000's)  
For Projected Years Ended

APPENDIX K  
Page 4

Line No.	Year Ended	1	2	3	4	5
1	<u>Residential</u>					
2	5/8 Inch					
3	3/4 Inch					
4	1 Inch					
5	2 Inch					
6	3 inch					
7	<u>Commercial</u>					
8	5/8 Inch					
9	3/4 Inch					
10	1 Inch					
11	2 Inch					
12	3 inch					
13	<u>Irrigation</u>					
14	5/8 Inch					
15	3/4 Inch					
16	1 Inch					
17	2 Inch					
18						
19						
20						
21						
22						
23						
24						
25	Total	2,356	7,069	11,781	16,493	18,850
26						



**Ridgeline Estates Water Company**  
**Schedule for the Computation of Projected**  
**Property Taxes for the Years Ended**

APPENDIX K  
Page 5

Line No.	Year	1	2	3	4	5
1						
2						
3	Revenue Component 1	\$ 34,153	\$ 34,153	\$ 34,153	\$ 100,759	\$ 167,365
4	Revenue Component 2	34,153	34,153	100,759	167,365	233,971
5	Revenue Component 3	34,153	100,759	167,365	233,971	266,424
6						
7	Average 3 years of revenue	34,153	56,355	100,759	167,365	222,587
8						
9	Average 3 years of revenue times 2	\$ 68,306	\$ 112,710	\$ 201,518	\$ 334,730	\$ 445,173
10	Add:					
11	Construction Work in Progress at 10%	0	0	0	0	0
12	Deduct:					
13	Book Value of Transportation Equipment	0	0	0	0	0
14						
15	Full Cash Value	\$ 68,306	\$ 112,710	\$ 201,518	\$ 334,730	\$ 445,173
16						
17						
18	Times Assessment Ratio	23.00%	22.50%	22.00%	21.50%	21.00%
19						
20	Assessed Value	\$ 15,710	\$ 25,360	\$ 44,334	\$ 71,967	\$ 93,486
21						
22	Property Tax Rate	12.55%	12.55%	12.55%	12.55%	12.55%
23						
24	Computed Property Tax	\$ 1,972	\$ 3,183	\$ 5,564	\$ 9,032	\$ 11,733
25						
26						
27						
28						
29						
30						



Ridgeline Estates Water Company  
Schedule of Projected Revenues  
For the Years Ended

APPENDIX K  
Page 6

Line  
No.

Projected Customers / Residential 5/8 Inch Meter

	Year				
	1	2	3	4	5
Estimated connections installed by year end (Cumulative)					
Estimated connection installed during the year	34	68	102	136	136
1/2 Year Convention for Revenue	34	34	34	34	-
<u>Projected Revenue</u>	17.00	51.00	85.00	119.00	136.00
Annual gallonage delivered (in 1,000's)					
Assuming average usage per month of:					
Daily Gallons	2,356	7,069	11,781	16,493	18,850
Residential:					
Monthly Mins.	6,545	19,635	32,725	45,815	52,360
Commodity Rev.	\$ 21,522	\$ 64,588	\$ 107,610	\$ 150,654	\$ 172,176
Minimum Charge					
Gals. in minimum					
Charge per 1,000	11,781	35,343	58,905	82,467	94,248
from up to 9,999,999,999 gals					
Charge per 1,000					
from up to 9,999,999,999 gals					
Charge per 1,000					
Over 9,999,999,999 gals					
Establishment Fees at	\$ 850	\$ 850	\$ 850	\$ 850	\$ 850
Total Revenue	\$ 34,153	\$ 100,759	\$ 167,365	\$ 233,971	\$ 268,424
AWWA factor used					1.00





# **Exhibit A-11**

(Balance Sheet for Projected Years 1-5)

Ridgeline Water Company, L.L.C.  
Docket No. W-20589A-08-0173



Ridgeline Estates Water Company  
Projected Balance Sheets  
For the Years Ended

APPENDIX I  
Page 1

Line No.	Beginning of Year	Label	Year			
			1	2	3	4
1		Assets				
2						
3						
4						
5		Utility Plant	3,928,723	3,928,723	3,928,723	3,928,723
6		Accumulated Depreciation	(50,232)	(150,695)	(251,158)	(351,622)
7						
8		Cash	9,361	119,389	257,004	441,609
9						
10						
11		Total Assets	\$ 3,887,852	\$ 3,912,852	\$ 3,897,417	\$ 4,018,710
12						
13		Equity and Liabilities				
14						
15		Equity				
16						
17		Common Stock, Net of	1,762,758	1,762,758	1,762,758	1,762,758
18						
19		Retained Earnings	(40,870)	(68,803)	(35,720)	52,783
20		Total Equity	\$ 1,716,888	\$ 1,741,888	\$ 1,713,956	\$ 1,835,541
21						
22		Liabilities & Deferred Credits				
23		Advances in Aid of Construction	2,170,964	2,183,461	2,187,529	2,183,169
24		Contributions in Aid of				
25		Construction				
26		Less: Amortization				
27		Customer Deposits				
28		Long-Term Debt				
29						
30						
31		Total Liabilities and	2,170,964	2,183,461	2,187,529	2,183,169
32		Deferred Credits				
33						
34						
35		Total Equity & Liab.	\$ 3,887,852	\$ 3,912,852	\$ 3,897,417	\$ 4,018,710
36						
37						
38						
39						
40						
41						
42						
43						
44						
45						
46						
47						
48						
49						

- (a) Plant Additions (See Appendix H, pages 1 through 5)  
(b) Depreciation Computations (See Appendix H, pages 1 through 5)  
(c) Cash flows (See Appendix I, page 6)  
(d) Financing (See Appendix I, page 2)  
(e) Profit or loss from operations (See Appendix K, page 1)  
(f) Advances-in-Aid of Construction (See Appendix I, pages 3 and 5)  
(g) Contributions-in-Aid of Construction (See Appendix I, page 4)



**Ridgeline Estates Water Company**  
**Schedule of Developer Advances and Refunds**  
**Projected Years**

Appendix I  
Page 3

Line No.	1	2	3	4	5
1					
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35					
36					
37					
38					

<b>Developer Advances Collected</b>					
Developer Advances - Trans & Dist.	\$ 2,153,284	\$ -	\$ -	\$ -	\$ -
<b>Total Collected</b>	<b>\$ 2,153,284</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Cummulative Collected</b>	<b>\$ 2,153,284</b>	<b>\$ 2,153,284</b>	<b>\$ 2,153,284</b>	<b>\$ 2,153,284</b>	<b>\$ 2,153,284</b>
<b>Developer Advances Refunded (a)</b>					
Based on Revenues		3,415	10,076	16,737	23,397
<b>Total Refunds</b>	<b>\$ -</b>	<b>\$ 3,415</b>	<b>\$ 10,076</b>	<b>\$ 16,737</b>	<b>\$ 23,397</b>
<b>Cummulative Refunds</b>	<b>\$ -</b>	<b>\$ 3,415</b>	<b>\$ 13,491</b>	<b>\$ 30,228</b>	<b>\$ 53,625</b>
<b>Cummulative Balance</b>	<b>\$ 2,153,284</b>	<b>\$ 2,149,869</b>	<b>\$ 2,139,793</b>	<b>\$ 2,123,057</b>	<b>\$ 2,099,660</b>
(a) Refund Rate per Year	10% based on revenues.				



**Ridgeline Estates Water Company**  
**Schedule of Contributions-in-Aid of Construction**  
**Projected Years**

**APPENDIX I**  
**Schedule 4**

Line No.	Year	1	2	3	4	5
5	<b>Contributions</b>					
6	Residential	-	-	-	-	-
7	Commercial	-	-	-	-	-
8	Irrigation	-	-	-	-	-
9						
10	<b>Developer Contributions</b>					
11	Developer Contributions - On-site	\$ -	\$ -	\$ -	\$ -	\$ -
12	Developer Contributions - Off-site	-	-	-	-	-
13						
14	<b>Total Collected</b>	\$ -	\$ -	\$ -	\$ -	\$ -
15						
16	<b>Cummulative Collected</b>	\$ -	\$ -	\$ -	\$ -	\$ -
17						
18	<b>Amortization</b>					
19	Composite Rate (1/2 Yr Conv.)	1.28%	2.56%	2.56%	2.56%	2.56%
20						
21	<b>Amortization</b>	\$ -	\$ -	\$ -	\$ -	\$ -
22						
23	<b>Cummulative Amortization</b>	\$ -	\$ -	\$ -	\$ -	\$ -
24						
25	<b>Cummulative Balance</b>	\$ -	\$ -	\$ -	\$ -	\$ -
26						
27						
28						
29						
30						
31						
32						



Ridgeline Estates Water Company  
Schedule of Service Line and Meter Installation Refunds  
Projected Years

APPENDIX I  
Schedule 5

Line No.	1	2	3	4	5
1					
2					
3					
4					
5					
6					
7					
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38					

<b>Service Line and Meter Installations</b>					
Residential	\$ 17,680	\$ 17,680	\$ 17,680	\$ 17,680	\$ -
Commercial	-	-	-	-	-
School	-	-	-	-	-
Total Collected	\$ 17,680	\$ 17,680	\$ 17,680	\$ 17,680	\$ -
Cummulative Collected	\$ 17,680	\$ 35,360	\$ 53,040	\$ 70,720	\$ 70,720

<b>Service Line and Meter Installations Refunded (a)</b>					
Service Line & Meter Install. from					
Service Line & Meter Install. from	1,768	1,768	1,768	1,768	1,768
Service Line & Meter Install. from		1,768		1,768	1,768
Service Line & Meter Install. from				1,768	1,768
Service Line & Meter Install. from					-
Total Refunds	\$ -	\$ 1,768	\$ 3,536	\$ 5,304	\$ 5,304
Cummulative Refunds	\$ -	\$ 1,768	\$ 5,304	\$ 10,608	\$ 15,912
Cummulative Balance	\$ 17,680	\$ 33,592	\$ 47,736	\$ 60,112	\$ 54,808

(a) Refund Rate per Year	10%
--------------------------	-----



Ridgeline Estates Water Company  
Projected Cash Flows  
For the Years Ended

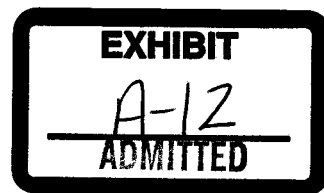
APPENDIX I  
Page 6

Line No.	0	1	2	3	4	5
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43						
44						
45						

<b>Cash from Operations</b>						
Beginning Cash Balance	\$ -	\$ 25,000	\$ 34,361	\$ 119,389	\$ 257,004	\$ 441,609
Income from Operations		(40,870)	(27,932)	33,083	88,502	116,246
Add Depreciation expense		50,232	100,463	100,463	100,463	100,463
<b>Total Cash From Operations</b>	\$ -	\$ 9,361	\$ 72,531	\$ 133,547	\$ 188,966	\$ 216,710
<b>Cash from Financing</b>						
Deposits (security) collected	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Long-Term Debt	-	-	-	-	-	-
Common Equity	25,000	1,757,758	-	-	-	-
Advances in Aid of Const.	-	2,153,284	-	-	-	-
Contribution in Aid of Const.	-	-	-	-	-	-
Meter Deposits Collected	-	17,680	17,680	17,680	17,680	-
<b>Total Cash from Financing</b>	\$ 25,000	\$ 3,928,723	\$ 17,680	\$ 17,680	\$ 17,680	\$ -
<b>Uses of Cash:</b>						
Long-term debt Repayment	\$ -	\$ -	\$ 5,183	\$ 13,612	\$ 22,041	\$ 28,701
Advances Refunded	-	-	-	-	-	-
Meter Deposit Refunded	-	-	-	-	-	-
Deposit (Security) refunded	-	-	-	-	-	-
Capital Improvements - Plant	-	3,928,723	-	-	-	-
<b>Total Cash Uses</b>	\$ -	\$ 3,928,723	\$ 5,183	\$ 13,612	\$ 22,041	\$ 28,701
<b>Ending Cash Balance</b>	\$ 25,000	\$ 34,361	\$ 119,389	\$ 257,004	\$ 441,609	\$ 629,618
<b>Interest Income: Assuming Earning Equal to Inflation Factor on Average Cash Balance</b>						
Average Cash Balance	\$ 12,500	\$ 29,681	\$ 76,875	\$ 188,196	\$ 349,306	\$ 535,613
Interest Earned	\$ 375	\$ 890	\$ 2,306	\$ 5,646	\$ 10,479	\$ 16,068





# **Exhibit A-12**

**(Documentation Relating to Conversion  
of Pollux Properties, L.L.C.'s Debt to  
Equity)**

**Ridgeline Water Company, L.L.C.  
Docket No. W-20589A-08-0173**



# **POLLUX PROPERTIES, LLC**

## **LOAN CONVERSION AGREEMENT**

Pollux Properties, LLC, an Arizona limited liability company (the "Company") is currently indebted to the Lender named on the signature page hereof (the "Lender") in accordance with the terms of a Promissory Note (the "Promissory Note"), which indebtedness is secured by the Company's execution of a Deed of Trust (the "Deed of Trust"), which constitutes a lien on certain real property of the Company. Information concerning the Promissory Note and Deed of Trust, including, without limitation, the outstanding balance of principal and accrued interest as of the date of this Agreement, is set forth on Exhibit A attached hereto. The Promissory Note and Deed of Trust represent one of a number of promissory notes and deeds of trust executed by the Company (collectively, the "Debt Instruments") in connection with its financing of the acquisition and improvement of approximately 660 acres in Pima County, 12 miles south east of the town of Green Valley and 12 miles north of Tubac, Arizona in the area referred to as Elephant Head (the "Subject Property"). Lender hereby agrees to convert the outstanding principal balance and accrued interest outstanding as of the Effective Date as defined in Paragraph 2 below (the "Outstanding Balance") into a membership interest (the "Membership Interest") in the Company (the "Debt Conversion") upon the terms and conditions set forth herein.

1. Terms of Debt Conversion. The Debt Conversion shall be in accordance with the terms specified in the "Information Memorandum Regarding Conversion of Outstanding Debt to Equity" dated September 30, 2008 (the "Information Memorandum"), and shall be effective on the Effective Date. On the Effective Date, (a) Lender shall hold the Membership Interest, (b) the Membership Interest will represent no less than the Percentage Interest in the Company set forth on Exhibit A hereto, (c) the Company shall have no further obligations with respect to the Promissory Note, and (d) the portion of the Subject Property subject to the lien of the Deed of Trust shall be released from such lien.

2. Effective Date of Conversion. The Debt Conversion shall become effective on the Effective Date. For purposes of this Agreement, the "Effective Date" means the date the holders of all Debt Instruments have executed a Loan Conversion Agreement in the form of this Agreement pursuant to which the entire outstanding balance of principal and accrued interest on such Debt Instruments is converted into membership interests in the Company in accordance with the terms set forth in the Information Memorandum. In the event that the Effective Date does not occur on or before \_\_\_\_\_, 2008, the Debt Conversion shall not occur and this Agreement shall become null and void and of no further force or effect.

3. Certifications and Agreements of Lender. The undersigned (the "Lender"), by executing this Loan Conversion Agreement, does hereby certify and agree as follows:

A. The Lender has had various discussions (the "Discussions") with a representative of Pollux Management, LLC, the Manager of the Company. During the course of the Discussions, information concerning the Company and its business was discussed in great



detail and the Lender had the opportunity to obtain any additional information the Lender believed was necessary in order to evaluate the risks and merits of the investment. The Lender has also received and reviewed the Information Memorandum. In addition, the Lender has undertaken such other independent due diligence activities as the Lender has deemed necessary in order to determine the viability of the Company's proposed activities.

B. The Lender, in connection with an investment in the Company, has sufficient knowledge and experience in business and financial matters, or has received competent professional advice concerning the Company and the proposed activities thereof, to evaluate the risks of ownership of the Membership Interest.

C. The Lender has been afforded the opportunity to obtain from the Company any additional information, to the extent possessed or obtainable without unreasonable effort or expense, necessary to evaluate the merits and risks of the Debt Conversion and ownership of the Membership Interest and the Lender has concluded, based on information presented to the Lender, the Lender's own understanding of investments of this nature and the advice of such consultants as the Lender deems appropriate, that the Lender wishes to convert the Outstanding Balance into the Membership Interest.

D. The Lender understands that the Membership Interest will not be registered under the Securities Act of 1933 (the "Act") or the securities laws of the State of Arizona or any other state and therefore, the Lender must bear the economic risks of ownership of the Membership Interest for an indefinite period of time since such interest can not be sold or offered for sale unless subsequently so registered or an exemption from such registration is available. Finally, the Lender understands that there is virtually no market for the resale of investments such as the Membership Interests and that any realization on the value of the Membership Interest will, in all probability, be solely from the distribution of cash realized from cash received by the Company from the sale of the Subject Property as described in the Memorandum.

E. The Lender understands that the Company's Operating Agreement sets forth restrictions on transferability and sale of membership interests in addition to those noted in Paragraph D above. In addition, the Lender agrees not to dispose of the Membership Interest unless the Lender has delivered to the Company an opinion of counsel in form acceptable to the Company that the proposed disposition does not violate the Act and the rules and regulations of the Securities and Exchange Commission or any applicable state blue sky or securities laws.

F. The Lender is acquiring the Membership Interest for the Lender's own account, for investment purposes only, and not for the account of any other person, and not with a view to distribution, assignment, or resale to others or to fractionalize in whole or in part. In furtherance thereof, the Lender represents, warrants, and agrees as follows: (i) no other person has or will have transferred such interest except in accordance with the Act, the terms of the Company's Operating Agreement and applicable state securities laws or unless, in the opinion of counsel for the Company, an exemption from the registration requirements of the Act and such



laws is available; and (ii) the Company is under no obligation to register the Membership Interest on Lender's behalf or to assist Lender in complying with any exemption from registration.

G. The Lender is aware of and understands that an investment in the Company is a speculative investment that involves a significant degree of risk of loss of the Lender's entire investment.

H. Lender shall indemnify and hold harmless the Company, and any of the officers, employees, directors, control persons, principals, or any other representative of the Company who was or is a party or is threatened to be made a party to any threatened, pending, or completed action, suit, or proceeding, whether civil, criminal, administrative, or investigative, by reason of or arising from any actual or alleged misrepresentation or misstatement of facts or omission to represent or state facts made by the Lender to the Company concerning Lender or otherwise made herein in connection with Lender's investment in the Company (including attorney's fees, judgments, fines and amounts paid in settlement) as actually and reasonably incurred by such person or entity in connection with such action, suit, or proceeding.

I. **THE LENDER IS AWARE AND UNDERSTANDS THAT NO DUE DILIGENCE HAS BEEN PERFORMED BY ANY COUNSEL OR ACCOUNTANT FOR THE COMPANY WITH RESPECT TO THE LENDER'S INVESTMENT IN THE COMPANY OR THE COMPANY'S INVESTMENT IN THE SUBJECT PROPERTY.**

(signature page follows)



IN WITNESS WHEREOF, the Lender has executed this Loan Conversion Agreement this \_\_\_\_ day of \_\_\_\_\_, 2008.

TO BE COMPLETED BY EACH LENDER:

Signature

Signature{tc \11 "Signature

\_\_\_\_\_  
Type or Print Name

\_\_\_\_\_  
Type or Print Name

\_\_\_\_\_  
Residence Address  
Address

\_\_\_\_\_  
Residence Address{tc \12 "Residence  
Residence Address}

\_\_\_\_\_  
City, State and Zip Code

\_\_\_\_\_  
City, State and Zip Code

\_\_\_\_\_  
(area code) telephone number

\_\_\_\_\_  
(area code) telephone number

\_\_\_\_\_  
Tax ID or Social Security Number

\_\_\_\_\_  
Tax ID or Social Security Number

This Loan Conversion Agreement is accepted as of \_\_\_\_\_, 2008

**POLLUX PROPERTIES, LLC**

{tc \13 "For **Western Recovery Services, LLC**

By: Pollux Management, LLC, Manager

By: \_\_\_\_\_

Its: \_\_\_\_\_



EXHIBIT A

Information Concerning Promissory Note:

Date of Promissory Note: \_\_\_\_\_, 200\_

Initial Principal Balance of Promissory Note: \$ \_\_\_\_\_

Outstanding Principal Balance as of Date of  
Loan Conversion Agreement: \$ \_\_\_\_\_

Accrued Interest as of Date of Loan Conversion  
Agreement: \$ \_\_\_\_\_

Date of Deed of Trust: \_\_\_\_\_, 200\_

Percentage Interest in Company upon Conversion: \_\_\_\_\_%



**AMENDED AND RESTATED OPERATING AGREEMENT  
OF  
POLLUX PROPERTIES, LLC**

THIS AMENDED AND RESTATED OPERATING AGREEMENT (the "Agreement") for Pollux Properties, LLC, an Arizona limited liability company (the "Company") is made and entered effective as of the Effective Date described below by and among Pollux Management, LLC, an Arizona limited liability company as Manager (the "Manager"); those persons or entities named on the signature page as members of the Company (individually a "Member" and collectively, the "Members").

**RECITALS**

The Manager and the Members acknowledge that the following recitals are true and correct and constitute an integral part of this Agreement:

A. Pollux Properties, LLC (the "Company") was formed as an Arizona limited liability company on March 25, 2005 by the filing of Articles of Organization with the Arizona Corporation Commission.

B. As of May 31, 2008 the Company had indebtedness in the aggregate amount of \$4,382,016 (the "Subject Indebtedness") that was owed to various persons and entities (the "Debt Holders"). The Debt Holders have agreed to become Members and convert their respective Subject Indebtedness into a membership interests in the Company.

C. The Members are desirous of entering into this Agreement to govern the Company in accordance with the terms and conditions of this Agreement. This Agreement supersedes all prior operating agreements relating to the Company, and it shall become effective upon the Effective Date.

For the consideration of their mutual covenants hereinafter set forth, the Manager and the Members hereby agree as follows:

**ARTICLE 1  
FORMATION, NAME,  
PURPOSES, DEFINITIONS**

1.1 **FORMATION.** The Company has been formed pursuant to the Act. The parties have executed this Agreement to serve as the "Operating Agreement" of the Company, as that term is defined in A.R.S. Section 29-601(12), and subject to any applicable restrictions set forth in the Act, the business and affairs of the Company, and the relationship of the parties to one another, shall be operated in accordance with and governed by the terms and conditions set forth in this Agreement. In addition to execution of this Agreement, the Members shall execute and acknowledge any and all certificates and instruments and do all filing, recording, and other acts as may be necessary or appropriate to comply with the requirements of the Act relating to the operation and maintenance of the Company in accordance with the terms of this Agreement.

1.2 **TREATMENT AS PARTNERSHIP.** The Members intend that the Company shall be operated in a manner consistent with its treatment as a partnership for federal and state income tax purposes. It also is the intent of the Members that the Company not be operated or



treated as a "partnership" for purposes of Section 303 of the Federal Bankruptcy Code. No Member shall take any action inconsistent with the express intent of the parties hereto.

1.3 **NAME**. The name of the Company is "Pollux Properties, LLC".

1.4 **REGISTERED OFFICE**. The Company's registered office for the purpose of maintaining the records required to be maintained under the Act, shall be located at 2509 N. Campbell Avenue, Suite 427, Tucson, Arizona 85719, or at such other location as the Manager shall determine.

1.5 **PURPOSES AND POWERS**. The general purpose of the Company is to acquire ownership of the property described on Exhibit A attached hereto (the "Subject Property"), either directly or through acquisition of an entity holding title to the Subject Property, and to derive revenues from such ownership. The Company shall have the power to do any act necessary or expedient in order to achieve the foregoing purposes, including, without limitation the power to sell the Subject Property, and to engage in such other purposes, if any, as the Manager and a Majority-in-Interest of the Members shall agree. The Company may exercise all powers reasonable or necessary to pursue the same and shall have all of the powers permitted by law, except as restricted by the terms hereof.

1.6 **TERM**. The term of the Company commenced upon the filing of the Company's Articles of Organization and shall continue under the terms of this Agreement until otherwise terminated under the provisions of Article 9 hereof or in accordance with the Act.

1.7 **AGENT FOR SERVICE OF PROCESS**. The name and business address of the Company's initial agent for service of process is Pollux Management, LLC, 2509 N. Campbell Avenue, Suite 427, Tucson, Arizona 87519. The Manager may remove and replace the Company's agent for service of process at any time.

1.8 **DEFINITIONS**. Capitalized words and phrases used in this Agreement and not otherwise defined in this Agreement shall have the following meanings:

(a) "**Act**" shall mean the Arizona Limited Liability Company Act, Chapter 4 of Title 29, Arizona Revised Statutes.

(b) "**Affiliate**" shall mean with respect to the Manager or a particular Member: (i) any Person that, directly or indirectly, through one or more intermediaries, controls, or is controlled by, or is under common control of such Manager or Member, (ii) any Person that is an officer of, partner in, member of, or trustee of, or serves in a similar capacity with respect to such Manager or Member or of which such Manager or Member is an officer, partner, member, or trustee, or with respect to which such Manager or Member serves in a similar capacity, (iii) any Person that, directly or indirectly, is the beneficial owner of ten percent (10%) or more of any class of equity securities of, or otherwise has a substantial beneficial interest in, such Member or of which such Manager or Member is, directly or indirectly, the owner of ten percent (10%) or more of any class of equity securities of, or otherwise has a substantial beneficial interest in, such Manager or Member or of which such Manager or Member is, directly or indirectly, the owner of ten percent (10%) or more of any class of equity securities or in which such Manager or Member has a substantial beneficial interest; (iv) any spouse or other relative of such Manager or Member; and (v) any trust with respect to which one or more beneficiaries consist of such Manager or Member, or the spouse or other relative of such Manager or Member.



(c) "Agreement" shall mean this written operating agreement, as amended from time to time.

(d) "A.R.S." shall mean the corresponding provision of the Arizona Revised Statutes.

(e) "Assignee" shall mean any Person who acquires owns a membership interest in the Company or any portion of such interest in a Permitted Transfer but who is not a Substitute Member.

(f) "Capital Account" shall mean the capital account maintained for each Member in accordance with Section 5.3.

(g) "Capital Contribution" shall mean any contribution to the capital of the Company in cash, property, or services by a Member required pursuant to Article 2.

(h) "Code" shall mean the Internal Revenue Code of 1986, as amended from time to time.

(i) "Company" shall mean Pollux Holdings, LLC.

(j) "Fiscal Year" means the Company's fiscal year, which shall be a calendar year.

(k) "Majority-in-Interest of the Members" shall, except as otherwise provided herein, mean Members with Percentage Interests in the aggregate greater than fifty percent (50%).

(l) "Manager" shall mean Pollux Management, LLC or such other person or entity appointed Manager pursuant to the provisions of Article 3 hereof.

(m) "Member" shall mean the persons or entities executing this Agreement as the Members, any other person acquiring a membership interest directly from the Company, and any other Person acquiring a membership interest in the Company from a Member if such Person qualifies as a Substitute Member.

(n) "Net Available Cash Flow" shall mean, for any period, the Company's gross cash receipts derived from any source, less the portion thereof used: to pay or establish reasonable reserves for all Company expenses or contingencies; make debt payments; make payment on any loans to the Company from the Manager or the Members, for asset acquisitions; to make loans by the Company; and any other proper cash expenditure of the Company as reasonably determined by the Manager. "Net Available Cash Flow" shall not be reduced by depreciation, amortization, cost recovery deductions or similar allowances.

(o) "Percentage Interests" shall, except as otherwise provided herein, mean, with respect to a particular Member, the ratio that a Member's Capital Contribution bears to the Capital Contributions of all Members.

(p) "Permitted Transfer" shall have the meaning set forth in Section 8.2 hereof.



(q) "Person" shall mean any individual and any legal entity.

(r) "Profits" and "Losses" mean, for each fiscal year or other period, an amount equal to the Company's taxable income or loss for such year or period, determined in accordance with Code Section 703(a), reduced by any items of income or gain subject to special allocation pursuant to this Agreement, and otherwise adjusted by the Members to comply with the Treasury Regulations.

(s) "Subject Property" shall mean the property described on Exhibit A attached hereto.

(t) "Substitute Member" shall mean a Person who acquires all or a portion of the membership interest of Member, and who satisfies all of the conditions of Section 7.4 hereof.

(u) "Super Majority-in-Interest of the Members" shall, except as otherwise provided herein, mean the Members with Percentage Interests, in the aggregate, of at least seventy-five percent (75%).

(v) "Transfer" shall mean when used as a noun, any voluntary or involuntary sale, assignment, gift, transfer, or other disposition and when used as a verb, voluntarily or involuntarily to sell, assign, gift, transfer, or otherwise dispose of.

(w) "Treasury Regulations" shall mean the Regulations issued by the Treasury Department under the Code.

(x) "Withdrawal Event" shall mean those events and circumstances listed in A.R.S. Section 29-733.

(y) "Withdrawn Member" shall mean a Member following the occurrence of a Withdrawal Event with respect to such Member.

## **ARTICLE 2**

### **MEMBERS AND CAPITAL CONTRIBUTIONS**

2.1 **MEMBERS.** The names and addresses of the Members as of the date hereof are set forth on the signature page hereof. The Manager shall maintain records reflecting any changes in the addresses of the existing Members as well as the addition of other Members or Assignees resulting from either the transfer of a membership interest of a membership interest in the Company (to the extent permitted by this Agreement) or the issuance of additional membership interests in the Company (to the extent permitted by this Agreement).

#### **2.2 INITIAL CAPITAL CONTRIBUTIONS.**

2.2.1 **Manager's Contribution.** The Manager shall not be required to make a contribution to the capital of the Company in its capacity as Manager. To the extent that the Manager holds any interest as a Member it shall in all respects be treated as a Member of which Membership class applies.



2.2.2 Members' Contribution. Each Member's capital contribution, representing such Member's share of the Subject Indebtedness, is set forth on below their name on the signature page of this Agreement.

2.3 ADDITIONAL CAPITAL CONTRIBUTIONS. No Member shall be required to make any additional capital contributions to the Company.

2.4 WITHDRAWAL OF CONTRIBUTIONS. No Member shall have the right to withdraw or demand the return of all or any part of the Member's Capital Contributions except as otherwise provided in this Agreement or as otherwise agreed in writing by the Manager, a Super Majority-in-Interest of the Members.

2.5 INCLUSION OF ASSIGNEES. Whenever used in this the Agreement, the term "Member" shall also include an Assignee.

### **ARTICLE 3** **MANAGEMENT**

#### **3.1 MANAGEMENT**

3.1.1 In General. Subject to Sections 3.1.6 and 3.2 below, the business and affairs of the Company shall be managed by the Manager in accordance with the Act and the terms of this Agreement. The Manager shall have the complete right and authority to act on behalf of the Company for the purposes of the Company set forth in Section 1.5, including, but not limited to, delegating to other Members the authority to bind the Company and execute any instrument or take any action on behalf of the Company. The Manager shall initially be Pollux Management, LLC.

3.1.2 Resignation of Manager; Assignment of Manager's Interest. The Manager may withdraw as a Manager at any time for any reason or may assign its interest as Manager. Notwithstanding the above, no assignment of the Manager shall be effective without satisfaction of the following conditions:

A. Consent of Members. A Majority-in-Interest of the Members consent, in writing, to the substitution of the Manager's assignee as substitute Manager of the Company.

B. Assignee Assumes Obligations. The assignee of the Manager's interest must agree in writing to assume all responsibilities, obligations and duties imposed upon the Manager under this Agreement or by law and must execute all such instruments or documents that may be necessary to substitute such assignee as the Manager of the Company. In no event, however, shall the assigning Manager be relieved of its responsibilities and duties under this Agreement or at law or of its obligations or liabilities arising prior to the effectiveness of such assignment.

C. Termination of Interest. The assigning Manager's interest in the Company, as such, shall terminate upon the effective date of such assignment.

3.1.3 Removal of Manager. A Manager shall be removed upon the dissolution, bankruptcy, receivership, death or other cessation to exist of a Manager, or upon the vote of a Majority-in-Interest all Members voting in favor of such removal, provided that any such removal



shall not be effective until (a) a Majority-in-Interest of all Members has elected a substitute Manager, and (b) such substitute Manager has agreed in writing to assume all responsibilities, obligations and duties imposed upon the Manager under this Agreement or by law and executed all such instruments or documents that may be necessary to substitute such person or entity as the Manager of the Company.

3.1.4 Replacement of Manager. If at the time a Manager resigns pursuant to Section 3.1.2 or is removed pursuant to Section 3.1.3 there are one or more Managers remaining, such Manager(s) shall continue as the sole Manager(s) of the Company, otherwise, the following provisions shall apply. The Members shall have a period of ninety (90) days following the date of one of the events described above to select one or more substitute Managers upon the vote of a Majority-in-Interest of the Members. A meeting of the Members for the purpose of selecting a substitute Manager may be called upon the written request of Members with Percentage Interests of ten percent (10%), and upon providing at least ten (10) days notice to all Members, which notice shall specify the time and place of such meeting. In the event that the Members fail to select one or more substitute Managers, all decisions concerning the Company and its business will be decided by a Majority-in-Interest of the Members.

3.1.5 Payment for the Manager's Interest Upon Replacement. In the event that a Manager resign pursuant to Section 3.1.2 above or is removed pursuant to Section 3.1.3 above, the departing Manager shall be entitled to receive all compensation due such Manager through the date that resigns or is removed as Manager.

3.1.6 Members' Right to Direct Manager. At any time, upon a vote of a Majority-in-Interest of the Members, the Members can direct the Manager to take an action or actions, and the Manager shall follow such direction; provided that the Manager shall not be liable to the Members for any actions taken pursuant to the direction of the Members in accordance with this Section 3.1.6.

3.2 MATTERS REQUIRING APPROVAL OF THE MEMBERS. The Manager shall not be authorized to do any of the following on behalf of the Company without the prior approval of a Majority-in-Interest of the Members (or such higher percentages as required by the provisions of this Agreement):

- (a) Amend the purposes of the Company from those set forth in Section 1.5;
- (b) Admit another Manager in addition to an existing Manager;
- (c) Merge the Company with or into any other entity, or otherwise cause the Company to participate in any reorganization with any other entity;
- (d) Make an assignment for the benefit of creditors of the Company, file a voluntary petition in bankruptcy, or appoint a receiver for the Company;
- (e) Make any distribution of cash or other property to any Member that is inconsistent with the provisions of Article 5;
- (f) Perform any act that contravenes the provisions of this Agreement;



(g) Possess property of the Company, or assign rights in property of the Company for other than a purpose of the Company;

(h) Sell additional membership interests in the Company in addition to the membership interests outstanding as of the date of this Agreement. The issuance of any such additional membership interests shall be subject to the provisions of Section 7.5 below.

(i) Issue debt instruments convertible into equity interests in the Company.

3.3 **VOTING GENERALLY.** Each Member shall be entitled to one vote times the Member's Percentage Interest.

3.4 **MEETINGS.** At any time, by written notice, the Manager or a Majority-in-Interest of the Members may call a meeting of the Members relating to any matter on which the Members may vote as set forth in this Agreement or under the Act. Such notice shall set forth the date, time, place and purpose of the meeting. No meeting may take place less than five (5) days after the mailing of such notice. For purposes of determining those Members entitled to vote at such meeting, the record date shall be five (5) days prior to the date of such meeting. Each meeting shall be conducted by the Manager or such other person as a Majority-in-Interest of the Members present, in person or by proxy, at the meeting shall appoint. A quorum consisting of a Majority-in-Interest of the Members must be in attendance in person or by proxy in order for a meeting to be held and action taken. Members may participate in a meeting telephonically.

3.5 **WAIVER OF NOTICE.** When any notice is required to be given to any Member, a waiver thereof in writing signed by the person entitled to such notice, whether before, at, or after the time stated therein, shall be equivalent to the giving of such notice.

3.6 **PROXIES.** At all meetings of Members, a Member may vote in person or by proxy executed in writing by the Member or by a duly authorized attorney-in-fact. Such proxy shall be filed with the Manager before or at the time of the meeting. No proxy shall be valid after eleven months from the date of its execution, unless otherwise provided in the proxy.

3.7 **ACTION BY MEMBERS WITHOUT A MEETING.** Any action required or permitted to be taken at a meeting of Members may be taken without a meeting if the action is evidenced by one or more written consents describing the action taken, signed by the Members owning the requisite Percentage Interest necessary to adopt and approve the action as provided herein, and delivered to the Manager for inclusion in the minutes or for filing with the Company records. The record date for determining Members entitled to take action without a meeting shall be the date the first Member signs a written consent.

3.8 **RECORDS.** The Manager, at the Company's expense, shall maintain the following records at the Company's registered office or at another location determined by the Manager:

(a) A list of the full name and last known business, residence, or mailing address of each Member, both past and present;

(b) A copy of the articles or organization of the Company and all amendments thereto, together with executed copies of any powers of attorney pursuant to which any amendment has been executed;



(c) Copies of the Company's currently effective written operating agreement and all amendments thereto, copies of any prior written operating agreement no longer in effect, and copies of any writing permitted or required with respect to a Member's obligation to contribute cash, property, or services;

(d) Copies of the Company's federal, state, and local income tax returns and reports for the six most recent years;

(e) Copies of financial statements of the Company, if any, for the six most recent years;

(f) Minutes of every meeting of the Members;

(g) Any written consents or approvals obtained from Members for actions taken by them without a meeting; and

(h) Such other records as may be required to be kept pursuant to the terms of the Act.

**3.9 TAX RETURNS AND OTHER ELECTIONS.** The Manager shall, at the expense of the Company, cause the preparation and timely filing of all tax returns required to be filed by the Company pursuant to the Code and all other tax returns deemed necessary and required in each jurisdiction in which the Company does business. Copies of such returns, or pertinent information therefrom, shall be furnished to the Members within a reasonable time after the end of the Company's Fiscal Year. All elections permitted to be made by the Company under federal or state laws shall be made by the Manager. The Members hereby agree to the designation of the Manager as the "tax matters partner" (within the meaning of Section 6231 of the Code) of the Company.

**3.10 MANAGER'S DUTY OF CARE.** The Manager shall perform its duties on behalf of the Company in good faith with the degree of care that a general partner of a limited partnership would exercise under similar circumstances.

**3.11 EXPENSES OF THE MANAGER.** The Manager shall be entitled to have the Company pay, or be reimbursed by the Company for, all expenses that were reasonably incurred by the Manager in connection with carrying on the business and purposes of the Company, including, without limitation, any expenses incurred by the Manager in connection with the offering of Class A Units.

**3.12 EXCULPATION AND INDEMNITY OF THE MANAGER.** The Manager shall not be liable or accountable in damages to the Company or any Member for any act or omission of such Manager in connection with carrying on the business and purposes of the Company unless such act or omission constitutes gross negligence, willful misconduct, a violation of law, or a breach of this Agreement. Further, the Company shall defend and hold harmless the Manager for any act or omission of the Manager in connection with carrying on the business and purpose of the Company unless such act or omission constitutes gross negligence, willful misconduct, a violation of law, or a breach of this Agreement. The Company shall also indemnify any officers, employees, and agents of the Company to the same extent provided in the preceding provisions of this Section 3.12.



3.13 **COMPENSATION TO MANAGER.** The Manager is entitled to a management fee in the amount of \$3,000 per month. In addition, the Manager is entitled to a management sales fee in an amount equal to 1% of the gross sales proceeds price for any portion of the Subject Property up to a \$4,500,000 and 10% of any amount over \$4,500,000. For example, in the case of a \$5,000,000 sale, the management sales fee would be 1% of the first \$4,500,000 (or \$45,000) plus 10% of the next \$500,000 (or \$50,000) for a total of a \$95,000.

3.14 **INFORMATION TO BE PROVIDED TO MEMBERS.** In addition to any other rights to information and records granted to the Members in this Operating Agreement, the Manager shall provide the Members with the following information quarterly or semi-annually as noted below:

(a) A general management update (emailed quarterly) of the status of the Company's projects. The specific information to be included in this management update will be determined by the Manager.

(b) An income statement (emailed semi-annually).

(c) A balance sheet (emailed semi-annually).

(d) A statement of cash flow (emailed semi-annually).

Members may contact the Manager for a general update at anytime.

#### **ARTICLE 4** **RIGHTS AND OBLIGATIONS OF MEMBERS**

4.1 **LIMITATION OF LIABILITY.** Each Member's liability for the debts and obligations of the Company shall be limited as set forth in A.R.S. Section 29-651 and other applicable law.

4.2 **ACCESS TO COMPANY RECORDS.** Each Member shall have full and complete access to all books, records, financial accounts, and documents relating to the Company during normal business hours and with reasonable notice to the Manager.

4.3 **PRIORITY AND RETURN OF CAPITAL.** No Member shall have priority over any other Member, either as to the return of Capital Contributions or as to Profits, Losses, or distributions; except as otherwise expressly provided in this Agreement and except that this Section 4.3 shall not apply to any loans made to the Company by any Members, including the Manager.

#### **ARTICLE 5** **DISTRIBUTIONS PRIOR TO LIQUIDATION**

5.1 **DISTRIBUTIONS OF NET AVAILABLE CASH FLOW.** Prior to the dissolution of the Company and the commencement of the liquidation of its assets and winding up of its affairs, the Company shall distribute the Net Available Cash Flow to the Members at such times and in such amounts as the Manager may determine. The Net Available Cash Flow shall be distributed to the Members in accordance with their respective Percentage Interests.



5.2 **DISTRIBUTIONS IN LIQUIDATION.** Following the dissolution of the Company and the commencement of winding up and the liquidation of its assets, distributions to the Members shall be governed by Section 9.3 hereof.

5.3 **AMOUNTS WITHHELD.** All amounts withheld pursuant to the Code or any provisions of state or local tax law with respect to any payment or distribution to the Members from the Company shall be treated as amounts distributed to the relevant Member or Members for all purposes of this Agreement.

## **ARTICLE 6**

### **ALLOCATION OF PROFITS AND LOSSES**

6.1 **NET PROFIT AND LOSS ALLOCATION.** Net profits and losses shall be allocated annually among the Members pro rata in accordance with their respective Percentage Interests.

#### **SPECIAL ALLOCATIONS.**

6.2.1 **Regulatory Allocations.** The allocations set forth above in Section 6.1 are intended to comply with the requirements of Regulations Sections 1.704-1(b) and 1.704-2. If the Company incurs "nonrecourse deductions" or "partner nonrecourse deductions," or if there is any change in the Company's "minimum gain" or "partner nonrecourse debt minimum gain", as defined in such Regulations, the allocation of Net Profits and Losses and items thereof to the Members shall be modified in a reasonable manner deemed necessary or advisable by the "tax matters partner", to comply with such Regulations.

6.2.2 **Code Section 704(c).** The Members' distributive shares of income, gain, loss and deduction with respect to any property contributed to the Company shall be determined, solely for tax purposes, in accordance with Code Section 704(c) and the Regulations from time to time in effect thereunder so as to take into account any variation between the Asset Basis and Asset Value of such property. Determinations pursuant to this Section 6.2.2 shall be made in any manner that reasonably reflects the purpose and intention of this Agreement and are solely for purposes of federal, state and local taxes and shall not affect or be taken into account in determining any Member's capital account, or share of profits, losses, gains or deductions or other distributions pursuant to this Agreement.

6.2.3 **Definitions.** For purposes of this Section 6.2.3, the term (i) "Asset Basis" with respect to any Company asset shall mean that asset's adjusted basis from time to time for federal income tax purposes; and (ii) "Asset Value" with respect to any Company Asset shall mean that asset's fair market value at the date it was contributed to the Company as determined by the contributing Member and the Company.

6.3 **CAPITAL ACCOUNTS.** A capital account ("Capital Account") shall be maintained for each Member in accordance with the Regulations under uniform policies established from time to time by the "tax matters partner".

6.4 **ALLOCATION IN RESPECT TO TRANSFERRED INTERESTS.** If a membership interest in the Company is conveyed in a Permitted Transfer during any Fiscal Year, allocations of Profits and Losses and items of income, gain, loss, and deduction with



respect to such membership interest shall be allocated between the transferor and the transferee by taking into account their varying interests in the membership interest during such Fiscal Year.

6.5 **INCLUSION OF ASSIGNEES.** Whenever used in this Article 6, the term "Member" shall also include an Assignee.

## **ARTICLE 7**

### **ADMISSIONS AND WITHDRAWALS**

7.1 **ADMISSION OF MEMBER.** No Person shall be admitted as a Member of the Company as a result of a Transfer of an Interest in the Company except in compliance with the terms of Article 8.

7.2 **RIGHT TO WITHDRAW.** A Member may voluntarily withdraw from the Company at any time by mailing or delivering a written notice of withdrawal to the Company and to the Manager at their address set forth in the list maintained by the Company. However, if a Member withdraws from the Company as a result of a voluntary withdrawal or the occurrence of any other Withdrawal Event (other than death or disability) prior to the dissolution of the Company pursuant to Article 9 below, the withdrawal will be considered to be a breach of this Agreement. Anything in this Agreement or the Act to the contrary notwithstanding, the rights of a Withdrawn Member and the amounts receivable by a Withdrawn Member from the Company or the remaining Members following withdrawal shall be as set forth in Sections 7.4 through 7.5.

7.3 **EXPULSION.** The Members acknowledge that the terms of this Agreement, including particularly Article 3, are intended as a means to operate the business and affairs of the Company in an efficient and orderly manner and that the acts or omissions of one or more Members in contravention thereof shall be inconsistent with the objectives of all the Members. In recognition thereof, the Members hereby agree that a Member who shall breach the provisions of this Agreement and who shall fail to correct any such breach of this Agreement within thirty (30) days following the delivery of notice of the breaching conduct from the Manager, shall be expelled from the Company by the determination of the Manager. In accordance with Arizona Revised Statute Section 29-733, such expulsion shall be treated as a Withdrawal Event of the breaching Member and the rights of such Withdrawn Member and the amounts receivable by the Withdrawn Member from the Company and the remaining Members following withdrawal shall be as set forth in Section 7.4.

7.4 **RIGHTS OF WITHDRAWN MEMBER.** Following a Withdrawal Event of a Member (excluding a Transfer by a Member of all the Member's interest in the Company), the Withdrawn Member (or the Withdrawn Member's successor or personal representative) shall cease to have any rights of a Member except only the right to receive distributions occurring at the times and equal in amounts to those distributions the Withdrawn Member would otherwise have received if a Withdrawal Event had not occurred.

#### **7.5 ADMISSION OF ADDITIONAL MEMBERS.**

7.5.1 **Sale of Other Membership Interests.** The Company may raise additional capital through the sale of membership interests in the Company upon the consent of a Super Majority-in-Interest of the Members.



7.5.2 Terms and Conditions Applicable to Additional Interests. In connection with the approval of any additional membership interests pursuant to Section 7.5.1 above, the Manager shall establish terms and conditions applicable to the issuance of such additional membership interests, which terms and conditions may include, without limitation, requiring that such additional membership interests be first offered to existing Members, or establishing rights and privileges applicable to such additional membership interests that are different than the rights and privileges applicable to the membership interests held by the existing Members.

## **ARTICLE 8**

### **RESTRICTIONS ON TRANSFERABILITY**

8.1 **GENERAL.** No Member shall be authorized to transfer all or a portion of such Member's interest in the Company unless the Transfer constitutes a Permitted Transfer. For purposes of this Agreement, a Transfer of a Member's interest in the Company shall constitute a Permitted Transfer if it satisfies the conditions set forth in Section 8.2 below and (a) it is approved by the Manager, which approval shall not be unreasonably withheld or (b) the Transfer is made by a Member to an Affiliate of such Member or to another Member or its Affiliate.

8.2 **CONDITIONS TO PERMITTED TRANSFER.** A Transfer shall not be treated as a Permitted Transfer unless all of the following conditions are satisfied.

(a) The transferor and the transferee reimburse the Company for all costs that the Company incurs in connection with such Transfer;

(b) The Transfer does not cause the Company to "terminate" for federal income tax purposes, unless all the Members consent in writing to waive this condition;

(c) The transferor and the transferee agree to execute such documents and instruments as the Manager determines are necessary or appropriate to confirm such Transfer; and

(d) Such Transfer is in compliance with all applicable state and federal securities laws. In that regard, the Manager may require the transferring Member to provide the Company with an opinion of counsel that the Transfer in question so complies with such securities laws.

8.3 **ADMISSION AS SUBSTITUTE MEMBER.** Subject to the other provisions of this Article 8, a transferee of a Subject Interest shall be admitted to the Company as a Substitute Member only upon satisfaction of the following conditions:

(a) The Subject Interest with respect to which the transferee is being admitted was acquired by means of a Permitted Transfer;

(b) The transferee becomes a party to this Agreement and executes such documents and instruments as the Manager determines are necessary or appropriate to confirm such transferee as a Member and such transferee's agreement to be bound by the terms of this Agreement; and



(c) The Manager consents to the admission of the transferee as a Substituted Member, which consent may be withheld in the sole and absolute discretion of the Manager.

Anything in this Section 8.4 to the contrary notwithstanding, a transferee shall not become a Substitute Member under any circumstances if, at the time of the Transfer, counsel for the Company determines that the admission of the transferee as a Substitute Member would result in the characterization of the Company for federal income tax purposes as an association and not as a partnership.

8.4 **RIGHTS AS ASSIGNEE.** A Person who acquires a Member's interest in the Company (other than a Person who was a Member before such acquisition and other than an Affiliate of a Member) but who is not admitted to the Company as a Substituted Member shall have only the right to receive the distributions and allocations of Profits and Losses to which the Person would have been entitled under this Agreement with respect to the transferred interest in the Company, but shall have no right to participate in the management of the Company, no right to inspect the books and records of the Company, and no other rights accorded to Members under this Agreement.

8.5 **PROHIBITED TRANSFERS.** Any purported Transfer of a Member's interest in the Company that is not a Permitted Transfer shall be null and void and of no force and effect whatsoever. In the case of an attempted Transfer that is not a Permitted Transfer, the parties engaging in or attempting to engage in such Transfer shall be liable to and shall indemnify and hold harmless the Company from all loss, cost, liability and damages that the Company or any Member shall incur as a result of such attempted Transfer.

## **ARTICLE 9**

### **DISSOLUTION AND TERMINATION**

9.1 **DISSOLUTION.** The Company shall be dissolved upon the first to occur of any of the following events:

9.1.1 **Agreement of Manager and Members.** The written agreement of the Manager and a Super Majority in Interest of the Members;

9.1.2 **Decree of Dissolution.** The entry of a decree of dissolution under A.R.S. Section 29-785; or

9.1.3 **Sale of Assets.** The sale or other disposition by the Company of all or substantially all of the Company's assets and the distribution of the proceeds therefrom to the Members.

The occurrence of a Withdrawal Event shall not effect the dissolution of the Company, and the remaining Members shall have the right to continue the Company until otherwise terminated as provided herein.

9.2 **NOTICE OF WINDING UP.** Promptly following the dissolution of the Company, the Manager shall cause a "Notice of Winding Up" to be filed with the Arizona Corporation Commission in accordance with the Act.



9.3 **LIQUIDATION, WINDING UP AND DISTRIBUTION OF ASSETS.** Upon dissolution of the Company, the Manager shall proceed to liquidate the Company's assets and properties, discharge the Company's obligations, and wind up the Company's business and affairs as promptly as is consistent with obtaining the fair value thereof. The proceeds of liquidation of the Company's assets, to the extent sufficient therefor, shall be applied and distributed as follows:

9.3.1 **Payment of Outside Debts.** First, to the payment and discharge of all of the Company's debts and liabilities, and specifically, any outstanding Capital Notes and interest due thereon, except those obligations owing to Members or to the establishment of any reasonable reserves for contingent or unliquidated debts and liabilities.

9.3.2 **Payment of Debts to Manager and Members.** Second, to the repayment of any outstanding loans to the Manager or any Member, pro rata based upon the aggregate amount of principal and interest owed to Manager and any Member.

9.3.3 **Capital Account Balances.** Third, to the Members in accordance with the positive balance of each Member's Capital Account as determined after taking into account all Capital Account adjustments for the Company's taxable year during which the liquidation occurs. Any such distributions to the Members in respect of their Capital Accounts shall be made within the time requirements of Section 1.704-1(b)(3)(ii)(b)(2) of the Regulations.

9.4 **DEFICIT CAPITAL ACCOUNTS.** No Member shall have any obligation to contribute or advance any funds or other property to the Company by reason of any negative or deficit balance in such Member's capital account during or upon completion of winding up or at any other time.

9.5 **ARTICLES OF TERMINATION.** When all of the remaining property and assets have been applied and distributed in accordance with Section 9.3 hereof, the Manager shall cause "Articles of Termination" to be executed and filed with the Arizona Corporation Commission in accordance with the Act.

9.6 **RETURN OF CONTRIBUTION NON-RECOURSE TO OTHER MEMBERS.** Except as provided by law, upon dissolution, each Member shall look solely to the assets of the Company for the return of the Member's Capital Contributions. If the Company property remaining after the payment or discharge of the debts and liabilities of the Company is insufficient to return the cash or other property contribution of one or more Members, such Member or Members shall have no recourse against any other Member.

9.7 **IN KIND DISTRIBUTIONS.** A Member shall have no right to demand and receive any distribution from the Company in any form other than cash. However, a Member may be compelled to accept a distribution of an asset in kind if the Company is unable to dispose of all of its assets for cash. All determinations of value of assets and the allocation among the Members in the event of an in kind distribution shall be made by the Manager in its sole discretion.

## **ARTICLE 10**

### **MISCELLANEOUS PROVISIONS**



10.1 **NOTICE.** Every provision for notice, demand or request required in this Agreement, or by applicable law shall be deemed fulfilled by written notice, demand or request personally served on (or mailed, sent by commercial courier, or delivered by facsimile transmission, as hereinafter provided) the party entitled thereto or on such party's successors or assigns. If mailed, such notice, demand or request shall be made by certified or registered mail, and deposited in any post office station or letter-box, enclosed in a postage paid envelope, addressed to such party at its address as set forth in the records of the Company, or to such other address as a party hereto shall direct by written notice pursuant to this Section, and shall be deemed to have been made on the second (2<sup>nd</sup>) business day following posting as aforesaid. If commercially sent, the party giving such notice shall use a recognized, commercial courier services and notice shall be deemed to have been made on the day of actual receipted delivery to the address. If sent by facsimile transmission, the party sending the transmission shall send it to the facsimile number, if any set forth in the records or to such other number as a party hereto shall direct by written notice given in accordance with this Section. Delivery shall be deemed to have been made on the day that the facsimile transmission occurred, if received prior to 4:00 p.m. on a business day at the place of receipt, otherwise on the following business day. References to "business day" shall mean a day that is not a Saturday, Sunday, or legal holiday in Arizona.

10.2 **APPLICATION OF ARIZONA LAW.** This Agreement shall be construed and enforced in accordance with the laws of the State of Arizona.

10.3 **WAIVER OF ACTION FOR PARTITION.** Each Member irrevocably waives during the term of the Company any right that it may have to maintain any action for partition with respect to the property of the Company.

10.4 **AMENDMENTS.** This Agreement may not be amended except by the written agreement of a Super Majority-in-Interest of the Members, provided, however, that the consent of all of the Members will be needed in order to amend the provisions of Articles 5 or 6 (except as Articles 5 and/or 6 may be amended as required in connection with the sale of additional membership interests in the Company pursuant to Section 7.5 above), or this Section 10.4, or otherwise increase a Member's obligations under the term of this Agreement.

10.5 **EXECUTION OF ADDITIONAL INSTRUMENTS.** Each Member hereby agrees to execute such other and further statements of interest and holdings, designations, powers of attorney, and other instruments necessary to effectuate the terms of this Agreement or to comply with any applicable laws, rules or regulations.

10.6 **HEADINGS.** The headings in this Agreement are inserted for convenience only and are in no way intended to describe, interpret, define, or limit the scope, extent, or intent of this Agreement or any provision hereof.

10.7 **SEVERABILITY.** If any provision of this Agreement or the application thereof to any person or circumstance shall be invalid, illegal, or unenforceable to any extent, the remainder of this Agreement and the application thereof shall not be affected and shall be enforceable to the fullest extent permitted by law.

10.8 **HEIRS, SUCCESSORS, AND ASSIGNS.** Each and all of the covenants, terms, provisions, and agreements herein contained shall be binding upon and inure to the benefit of the parties hereto and, to the extent permitted by this Agreement and by applicable law, their respective heirs, legal representatives, successors, and assigns.



10.9 **CREDITORS AND OTHER THIRD PARTIES.** None of the provisions of this Agreement shall be for the benefit of, or enforceable, by any creditors of the Company or any other third parties.

10.10 **AUTHORITY TO ENTER INTO AGREEMENT.** By execution of this Agreement below, each Member represents and covenants as follows:

(a) The Member has full legal right, power, and authority to enter into this Agreement and to perform the obligations under this Agreement, including the obligation to make the Capital Contributions set forth in Article II;

(b) The Agreement constitutes the legal, valid, and binding obligation of the Member enforceable in accordance with its terms, except as the enforcement thereof may be limited by bankruptcy and other laws of general application relating to creditors' rights or general principles of equity;

(c) The Agreement does not violate, conflict with, result in a breach of the terms, conditions or provisions of, or constitute a default or an event of default under any other agreement of which the Member is a party; and

(d) The acquisition of an interest in the Company is made for the Member's own account for investment purposes only and not with a view to the resale or distribution of such interest.

10.11 **COUNTERPARTS.** This Agreement may be executed in any number of counterparts, all of which taken together shall constitute one and the same instrument, and any persons that are signatories hereto may execute this Agreement by signing any such counterpart.

(Signature pages follow.)



**IN WITNESS WHEREOF**, the parties hereto have executed this Agreement on the day and year first above written.

**MANAGER:**

POLLUX MANAGEMENT, LLC

By: Tucson Acquisition & Development Corporation, its Manager

By: \_\_\_\_\_  
Jeffrey S. Utsch, its Manager

By: \_\_\_\_\_  
Patrick Nikitenko, its Manager



## SIGNATURE PAGE FOR MEMBERS

MEMBERS:

\_\_\_\_\_  
Name: \_\_\_\_\_  
Capital Contribution and Percentage Interest:

\$ \_\_\_\_\_ %

\_\_\_\_\_  
Name: \_\_\_\_\_  
Capital Contribution and Percentage Interest:

\$ \_\_\_\_\_ %

\_\_\_\_\_  
Name: \_\_\_\_\_  
Capital Contribution and Percentage Interest:

\$ \_\_\_\_\_ %

\_\_\_\_\_  
Name: \_\_\_\_\_  
Capital Contribution and Percentage Interest:

\$ \_\_\_\_\_ %



EXHIBIT A

DESCRIPTION OF SUBJECT PROPERTY



EXHIBIT

A-13  
ADMITTED

# **Exhibit A-13**

**(Proposed Management Services  
Contract with Southwestern Utility  
Management, Inc.)**

**Ridgeline Water Company, L.L.C.  
Docket No. W-20589A-08-0173**





**SOUTHWESTERN UTILITY  
MANAGEMENT, INC.**

**WATER UTILITY MANAGEMENT**

**TELEPHONE: (520) 623-5172**

**FAX: (520) 792-0377**

**E-MAIL: SWUMGMT@aol.com**

**MAILING ADDRESS:**

**P.O. BOX 85160  
TUCSON, AZ 85754**

**LOCATION:**

**2102 N. Forbes Blvd, Suite 107  
TUCSON, AZ 85745**

August 25, 2008

Ridgeline Estates Water Company  
Attn: Mr. Jeff Utsch  
6141 N. Pomona Road  
Tucson, Arizona 85704

Re: Water company management – Ridgeline Estates Water Company

Dear Mr. Utsch,

It was a pleasure speaking with you once again. We at Southwestern Utility Management, Inc. are very much interested in managing your water utility.

As you know, we have extensive experience in managing water utilities across Arizona and believe our reputation will attest to that fact. We have extensive experience in every aspect of operations from being your certified operator, water testing, customer billing, accounts receivable and accounts payable just to name a few. We are a full service management company and we would be happy to supply you with references upon your request.

We have attached a sample contract for your review. As you can see we offer what we call a cafeteria style plan, wherein, clients can pick and choose the extent of their management needs. Please feel free to contact me at any time with any questions or comments and I will answer any concerns you may have.

Thank you for giving Southwestern Utility Management, Inc. the opportunity to possibly serve you and your community.

Regards,

Bonnie O'Connor, President  
Enclosure(s)





**SOUTHWESTERN UTILITY MANAGEMENT, INC.**  
**WATER UTILITY MANAGEMENT**  
**(520) 623-5172**

**MAILING ADDRESS:**  
**P. O. BOX 85160**  
**TUCSON, AZ 85754**

**LOCATION:**  
**2102 N. FORBES BLVD.**  
**SUITES 107**  
**TUCSON, AZ 85745**

**Service Agreement**

- 1.0 Agreement.** This Agreement between Southwestern Utility Management, Inc., an Arizona corporation "Southwestern", and \_\_\_\_\_ "Utility" requires Southwestern to provide to the services described in Attachment "A." In exchange, the Utility will compensate Southwestern as described in Attachment "A."
- 2.0 Term.** This Agreement is for a term of one year. Unless a party notifies the other party in writing that the contract will not be renewed at least 30 days before the expiration date, this Agreement will be renewed for an additional term of one year under the same terms.
- 3.0 Insurance.** Both parties will have, at a minimum, 2,000,000 Aggregate Limit, \$1,000,000 Products and Complete Operations Aggregate, \$1,000,000 Personal & Advertising Injury, \$1,000,000 Each Occurrence – Bodily Injury & Property Damage, \$1,000,000 Non-Owned & Hired Auto Liability, \$100,000 Fire Damage (any one fire), \$5,000 Medical Expense (any one person).
- 4.0 Employees.** Each Party to this Agreement is solely responsible for all acts or omissions of its employees, and for paying all salaries, withholding tax deductions, benefits, unemployment compensation, worker's compensation, and all other charges and liabilities arising out of the employer-employee relationship.
- 5.0 Costs.** Unless otherwise indicated in Attachment A, the Utility is responsible for all costs associated with the services provided by Southwestern, including, but not limited to postage, publication, printing, filings, testing, and utility system components. The Utility is responsible for Southwestern's reasonable travel expenses, including mileage at a rate of \$.58 per mile. This mileage cost may be adjusted without specific notice to the Utility, or an addendum to this Agreement, to adjust with and be the same as the federal mileage allowance. Please Initial: \_\_\_\_\_
- 6.0 Indemnification.** The Utility agrees to indemnify and hold harmless Southwestern (including its members, agents, officers, employees, and volunteers) from and against all claims, injuries, damages, losses, and expenses (including attorney fees and court costs) arising from acts or omissions of Southwestern (including those of its agents, employees, or volunteers, or any tier of its contractors) in the performance of this Agreement unless such liability arose due to negligent and or intentional misconduct by Southwestern. The insurance coverage requirements of this Agreement do not limit the scope of indemnification.
- 7.0 Termination.** This Agreement may be terminated by mutual consent of the Parties, provided the termination is in writing. Unless the Parties agree to a specific termination date, termination by mutual consent will be effective 30 days after both Parties have given their consent. In the event of default by either Party, the non-breaching Party may terminate this Agreement 10 business days after providing written notice to the breaching Party unless that Party cures the default during that time.
- 8.0 Legal Remedies for Breach of Contract.** Arizona law applies to this Agreement. The Parties agree that any action to enforce the provisions of this Agreement must be brought in the Superior Court in and for Pima County, Arizona. The prevailing Party will be entitled to recover its reasonable attorneys' fees and costs in any future dispute or action arising under this Agreement. Utility agrees that Southwestern will not be liable for any exemplary, special, indirect, consequential, or incidental damages.
- 9.0 Interpretation.** The Parties acknowledge and agree that each has been given the opportunity to independently review this Agreement with legal counsel, and that this Agreement is the result of negotiations between the Parties. The Parties agree that any ambiguous or disputed terms of this Agreement are not to subject to any rule of interpretation providing for the interpretation against the drafting Party.



Southwestern Utility Management, Inc.  
Operators Service Agreement (continued)

Utility Company-  
Address -  
City, State Zip -

**10.0 Not Partners.** This Agreement and its related activities do not establish the Parties as partners for any purpose.

**11.0 Severability.** If the Court holds that any term or provision of this Agreement is illegal, the validity or enforceability of the remainder of this Agreement will not be affected.

**12.0 Notice.** Unless expressly stated otherwise, notices under this Agreement must be in writing and hand-delivered or sent by certified United States mail, postage prepaid, to the following addresses: (Please fill in below)

Address - \_\_\_\_\_  
City, State Zip - \_\_\_\_\_

The Parties may change their address for receipt of notices at any time with notice to the other Party.

**13.0 Entire Agreement.** This Agreement and the exhibits attached and incorporated hereto constitute the entire understanding of the Parties and supersedes any previous agreement or understandings on the subjects discussed herein.

IN WITNESS HEREOF, this Agreement is executed by the Parties and made effective on: \_\_\_\_\_, 2008.

Southwestern Utility Management, Inc.

Utility Company:

By: \_\_\_\_\_

By: \_\_\_\_\_

Bonnie L. O'Connor

Its: Vice President

Its: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_



Southwestern Utility Management, Inc.  
Service Agreement (continued)

Utility Company:  
Address:  
City, State Zip:

**Attachment "A"**  
**Scope of Services and Compensation Terms**

Generally, Southwestern offers the following services at the rates described below. Southwestern is offering certain services to the Utility as indicated by the initials of its authorized representative below. The Utility acknowledges that it understands the offer and accepts the offer as shown by the initial of Utility's authorized representative below.

	<b>Services Provided By Southwestern</b>	<b>Rate</b>	<b>Client Acceptance Please Initial</b>	
1.	Act as Utility's certified operator	Included		
2.	Perform all routine sample testing (excludes MAP tests)	Included		
3.	Inspect the utility system monthly or when cause is given	Included		
4.	Conduct routine utility system operations*	Included		
4(a).	For first 200 customers	14.60		
4(b).	For next 300 customers	12.40		
4(c).	For 500 or more customers	10.20		
5.	Perform routine maintenance	Included		
6.	Read meters	Included		
7.	Provide 24-hour emergency number for customer service	Included		
8.	Direct and supervise standard utility system repairs	Included		
9.	Direct and supervise contractors for major system repairs	( b )		
10.	Direct and supervise capital improvement projects	( b )		
11.	Administer billing, collection, activity reports, utility client applications	Included		
12.	Bookkeeping functions, A/P, Balance Sheet, P&L, etc. (monthly)	( c )		
13.	Provide routine customer service	Included		
14.	Pay routine Utility bills, supplies and materials.	Included		
15.	Maintain Utility records	Included		
16.	Perform Utility clerical duties, customer relations	Included		
17.	Draft Utility rules, policies, and procedures ( as requested by utility)	( c )		
18.	Train Utility personnel	Included		
19.	Draft and file regulatory reports (ADEQ, ACC, ADWR) (if requested by Utility)	( c )		
20.	Draft and mail public notices	Included		
21.	Apply for rate adjustments (includes case participation) (if requested by Utility)	( c )		
22.	Apply for CC&N adjustment (includes case participation) (if requested by Utility)	( c ) ( d )		
23.	Outside Services**	( a ) ( b )		
24.	Consumer Confidence Reports (CCR) (if requested by Utility)	( c )		
25.	Initial Utility Set up fee ( one time charge)			
26.	Other: Meter installation - minimum \$125.00	( a )		

Southwestern's hourly rates, for services requested outside this contract are as follows:

- (a) Field Technician at \$45.00 per hour.
- (b) Operations Manager at \$55.00 per hour.
- (c) Office Personnel at \$65.00 per hour.
- (d) Legal Fees and participation additional at cost.

\* Southwestern labor for repairs during regular business hours, 7:30 a.m. through 3:30 p.m., will be provided as part of the service contract at no additional cost. Repairs after hours will be charged out at a rate of \$45.00 per field technician (**minimum charge two (2) hours**). Outside services and materials will be charged as noted hereinbefore. Please Initial: \_\_\_\_\_ (Full Service contract only)

\*\* This may include, but is not limited to: (a) pulling, repairing, and overhauling pumps ; (b) installing, replacing, or refinishing tanks; (c) repairing or replacing electrical equipment that may require a licensed electrical contractor; (d) cutting or replacing pavement or sidewalk; (e) repairing or replacing main lines or laterals; (f) and projects requiring specialized skills and/or equipment (i.e., backhoe, crane, trencher, etc.).

Restated, Utility agrees to pay Southwestern **\$ 4(a)-4 (b)-4(c) per active connection/** per month for Southwestern providing Service No's. 1 thru 4, 5 thru 8, 11 thru 16, 18 & 20. Utility agrees to pay Southwestern **\$ (a), (b), (c) & (d)** per hour, for providing Service No's: **9, 10, 17, 19 & 21 thru 26**. Utility agrees that Southwestern may do all things incidental to the exercise of the authority granted in this Attachment A at the hourly rates set forth above.

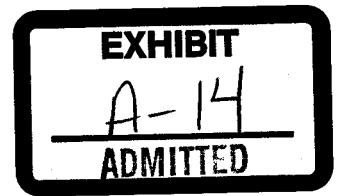
Please Initial: \_\_\_\_\_



Please indicate desired services start date: \_\_\_\_\_ Please Initial: \_\_\_\_\_

SAMPLE





# **Exhibit A-14**

**(Proposed Curtailment Plan Tariff)**

**Ridgeline Water Company, L.L.C.**  
**Docket No. W-20589A-08-0173**



## TARIFF SCHEDULE

Utility: Ridgeline Water Company  
Docket No.: W-  
Phone No.: (520) 545-0108

Tariff Sheet No.: Page 1 of 4  
Decision No.: \_\_\_\_\_  
Effective: \_\_\_\_\_

### **CURTAILMENT PLAN FOR RIDGELINE WATER COMPANY, L.L.C.**

ADEQ Public Water System No: \_\_\_\_\_

Ridgeline Water Company, L.L.C. ("Company"), is authorized to curtail water service to all customers within its certificated area under the terms and conditions listed in this tariff.

This curtailment plan shall become part of the Arizona Department of Environmental Quality Emergency Operations Plan for the Company.

The Company shall notify its customers of this new tariff as part of its next regularly scheduled billing after the effective date of the tariff no later than sixty (60) days after the effective date of the tariff.

The Company shall provide a copy of the curtailment tariff to any customers, upon request.

#### **Stage 1 Exists When:**

Company is able to maintain water storage in the system at 100 percent of capacity and there are no known problems with its well production or water storage in the system.

Restrictions: Under Stage 1, Company is deemed to be operating normally and no curtailment is necessary.

Notice Requirements: Under Stage 1, no notice is necessary.

#### **Stage 2 Exists When:**

Unless the context otherwise requires, the definitions set forth in R14-2-401 of the Arizona Corporation Commission's rules and regulations governing water utilities shall apply in interpreting this tariff schedule.

- a. Company's water storage or well production has been less than 80 percent of capacity for at least 48 consecutive hours, and
- b. Company has identified issues such as a steadily declining water table, increased draw down threatening pump operations, or poor water production, creating a reasonable belief the Company will be unable to meet anticipated water demand on a sustained basis.

Restrictions: Under Stage 2, the Company may request the customers to voluntarily employ water conservation measures to reduce water consumption by approximately 50 percent. Outside watering should be limited to essential water, dividing outside water on



## TARIFF SCHEDULE

Utility: Ridgeline Water Company  
Docket No.: W-  
Phone No.: (520) 545-0108

Tariff Sheet No.: Page 2 of 4  
Decision No.: \_\_\_\_\_  
Effective: \_\_\_\_\_

some uniform basis (such as even and odd days) and eliminating outside watering on weekends and holidays.

**Notice Requirements:** Under Stage 2, the Company is required to notify customers by delivering written notice door to door at each service address, or by United States first class mail to the billing address or, at the Company's option, both. Such notice shall notify the customers of the general nature of the problem and the need to conserve water.

### **Stage 3 Exists When:**

- a. Company's total water storage or well production has been less than 50 percent of capacity for at least 24 consecutive hours, and
- b. Company has identified issues such as a steadily declining water table, increased draw down threatening pump operations, or poor water production, creating a reasonable belief the Company will be unable to meet anticipated water demand on a sustained basis.

**Restrictions:** Under Stage 3, the Company shall request the customers to voluntarily employ water conservation measures to reduce water consumption by approximately 50 percent. All outside watering should be eliminated, except livestock, and indoor water conservation techniques should be employed whenever possible. Standpipe service shall be suspended.

### **Notice Requirements:**

1. Company is required to notify customers by delivering written notice to each service address, or by United States first class mail to the billing address or, at the Company's option, both. Such notice shall notify the customers of the general nature of the problem and the need to conserve water.
2. Beginning with Stage 3, Company shall post at least 4 signs showing the curtailment stage. Signs shall be posted at noticeable locations, like at the well sites and at the entrance to major subdivisions served by the Company.
3. Company shall notify the Customer Services Section of the Utilities Division of the Corporation Commission at least 12 hours prior to entering Stage 3.

Once Stage 3 has been reached, the Company must begin to augment the supply of water by either hauling or through an emergency interconnect with an approved water supply in an attempt to maintain the curtailment at a level no higher than Stage 3 until a permanent solution has been implemented.



## TARIFF SCHEDULE

Utility: Ridgeline Water Company  
Docket No.: W-  
Phone No.: (520) 545-0108

Tariff Sheet No.: Page 3 of 4  
Decision No.: \_\_\_\_\_  
Effective: \_\_\_\_\_

### Stage 4 Exists When:

- a. Company's total water storage or well production has been less than 25 percent of capacity for at least 12 consecutive hours, and
- b. Company has identified issues such as a steadily declining water table, increased draw down threatening pump operations, or poor water production, creating a reasonable belief the Company will be unable to meet anticipated water demand on a sustained basis.

**Restrictions:** Under Stage 4, Company shall inform the customers of a **mandatory** restriction to employ water conservation measures to reduce water consumption. Failure to comply will result in customer disconnection. The following uses of water shall be prohibited:

- ◆ Irrigation of outdoor lawns, trees, shrubs, or any plant life is prohibited
- ◆ Washing of any vehicle is prohibited
- ◆ The use of water for dust control or any outdoor cleaning uses is prohibited
- ◆ The use of drip or misting systems of any kind is prohibited
- ◆ The filling of any swimming pool, spas, fountains or ornamental pools is prohibited
- ◆ The use of construction water is prohibited
- ◆ Restaurant patrons shall be served water only upon request
- ◆ Any other water intensive activity is prohibited
- ◆ The addition of new service lines and meter installations is prohibited

### **Notice Requirements:**

1. Company is required to notify customers by delivering written notice to each service address, or by United States first class mail to the billing address or, at the Company's option, both. Such notice shall notify the customers of the general nature of the problem and the need to conserve water.
2. Company shall post at least 4 signs showing the curtailment stage. Signs shall be posted at noticeable locations, like at the well sites and at the entrance to major subdivisions served by the Company.
3. Company shall notify the Customer Services Section of the Utilities Division of the Corporation Commission at least 12 hours prior to entering Stage 4.

Customers who fail to comply with the above restrictions will be given a written notice to end all outdoor use. Failure to comply within two (2) working days of receipt of the notice will result in temporary loss of service until an agreement can be made to end unauthorized use of outdoor



## TARIFF SCHEDULE

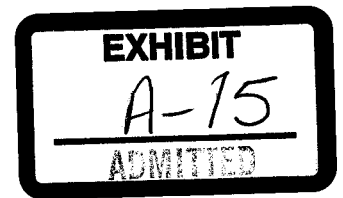
Utility: Ridgeline Water Company  
Docket No.: W-  
Phone No.: (520) 545-0108

Tariff Sheet No.: Page 4 of 4  
Decision No.: \_\_\_\_\_  
Effective: \_\_\_\_\_

water. To restore service, the customer shall be required to pay all authorized reconnection fees. If a customer believes he/she has been disconnected in error, the customer may contact the Commission's Consumer Services Section at 1-800-222-7000 to initiate an investigation.

Once Stage 4 has been reached, the Company must augment the supply of water by hauling or through an emergency interconnect from an approved supply or must otherwise provide emergency drinking water for its customers until a permanent solution has been implemented.





# **Exhibit A-15**

**(February 14, 2008 ADWR Analysis of  
Assured Water Supply)**

**Ridgeline Water Company, L.L.C.  
Docket No. W-20589A-08-0173**



**ARIZONA DEPARTMENT OF WATER RESOURCES**  
**Office of Assured and Adequate Water Supply**  
2<sup>nd</sup> Floor, 3550 N. Central Ave., Phoenix, AZ 85012  
Telephone (602) 771-8585  
Fax (602) 771-8689



**JANET NAPOLITANO**  
Governor

**HERB GUENTHER**  
Director

**ANALYSIS OF ASSURED WATER SUPPLY**  
February 14, 2008

**File Number:** 28-700397.0000  
**Development:** Ridgeline Estates  
**Location:** Township 19 South, Range 14 East, Sections 18, 19, 20, 29, 30  
Pima County, Arizona  
Tucson AMA  
**Land Owner:** Pollux Properties, L.L.C., an Arizona limited liability company  
Lotocka, L.L.C., an Oklahoma limited liability company

The Arizona Department of Water Resources has evaluated the Analysis of Assured Water Supply application for Ridgeline Estates pursuant to A.A.C. R12-15-703. The proposed development includes 166 single-family residential lots and 35.25 non-residential acres containing roads. The proposed development will include no common areas. Conclusions of the review are indicated below based on the assured water supply criteria referenced in A.R.S. § 45-576 and A.A.C. R12-15-701 *et seq.*

- **Physical, Continuous, and Legal Availability of Water for 100 Years**  
On the basis of the hydrologic study submitted and the Department's review, the Department has determined that 78.28 acre-feet per year of groundwater will be physically and continuously available. The development is not located within any current service area. Applications for Certificates of Assured Water Supply that follow the Analysis of Assured Water Supply will need to provide a detailed plan of how water service will be established. This may include use of Type 1 or Type 2 water rights or recovery of long term storage credits to create a new or satellite service area, or extension of existing service area lines to include the proposed development. Individual Notices of Intent to Serve will be required for each application for a Certificate of Assured Water Supply.
- **Adequate Water Quality**  
This requirement will be evaluated according to the criteria in A.A.C. R12-15-719 at the time an application for a Certificate of Assured Water Supply is filed. Prior to preparing an application for a Certificate of Assured Water Supply for an individual subdivision plat, the Office of Assured Water Supply may be contacted for further guidance.
- **Consistency with Management Plan for the Tucson Active Management Area**  
The estimated annual water demand for the development is consistent with the Third Management Plan for the Tucson AMA. All plumbing fixtures will comply with the statewide Low Flow Plumbing Code.



- **Consistency with Management Goal of the Tucson Active Management Area**  
The Assured and Adequate Water Supply Rules (A.A.C. R12-15-722 through R12-15-727) allocate an allowance of groundwater to each new subdivision in an AMA to allow for the phasing in of renewable supplies. Extinguishing grandfathered groundwater rights may increase this groundwater allowance. Applicants may also demonstrate that groundwater use is consistent with the management goal by enrolling the subdivision as member land in the Central Arizona Groundwater Replenishment District (CAGRD).

The application indicates that the proposed development will enroll the lands of the entire development, including the roads and other non-residential areas, in the CAGRD to meet this requirement. The membership documents must be executed and recorded before a Certificate of Assured Water Supply will be issued.


Prior to preparing an application for a Certificate of Assured Water Supply for an individual subdivision plat, the Office of Assured Water Supply may be contacted for further guidance.

- **Financial Capability of the Owner to Construct the Necessary Distribution System**  
This requirement will be evaluated according to the criteria in A.A.C. R12-15-720 at the time an application for a Certificate of Assured Water Supply is filed. Prior to preparing an application for a Certificate of Assured Water Supply for an individual subdivision plat, the Office of Assured Water Supply may be contacted for further guidance.

The term of this Analysis of Assured Water Supply is ten years from the date of this letter and may be renewed upon request, subject to approval by the Department. See A.A.C. R12-15-703. Throughout the term of this determination, the projected demand of this development will be considered when reviewing other requests for assured water supply in the area.

Prior to obtaining plat approval by the local platting authority and approval of the public report by the Department of Real Estate, a Certificate of Assured Water Supply must be obtained for each subdivision plat. The findings of this Analysis of Assured Water Supply may be used to demonstrate that certain requirements for a Certificate have been met. This determination may be invalidated if the development plan or other conditions change prior to filing for a Certificate of Assured Water Supply.

Questions may be directed to the Office of Assured Water Supply at (602) 771-8585.

  
Sandra Fabritz-Whitney, Assistant Director  
Water Management Division

cc: Kenneth Seasholes, Tucson Active Management Area



## **ARIZONA DEPARTMENT OF WATER RESOURCES**

### **NOTICE OF RIGHT TO APPEAL AGENCY ACTION**

#### **I. Right to Request Hearing**

You have the right to request a hearing on the agency action described in the enclosed letter. To request a hearing, you must file a notice of appeal with the Docket Supervisor, Arizona Department of Water Resources, 3550 North Central Avenue, Fourth Floor, Phoenix, Arizona 85012 within thirty (30) days from the date of your receipt of this letter. A Notice of Appeal form is enclosed. Pursuant to A.R.S. § 41-1092.03, the grounds for appeal by a party who will be adversely affected by the agency action and who exercised a right to comment on the action provided by law or rule is limited to the issues raised in the party's comments.

If you file a timely notice of appeal, a hearing will be scheduled and you will be given written notice of the time and place for the hearing at least thirty (30) days before the hearing date. The date scheduled for the hearing may be advanced or delayed on the agreement of the Department and the parties to the action or on a showing of good cause. **If no party files a notice of appeal within thirty days from the date of receipt of the enclosed letter, the agency action described in the letter will become final and will not be subject to judicial review.**

#### **II. Right to Request Informal Settlement Conference**

If you file a timely notice of appeal as described above, you will have the right to request an informal settlement conference. A request for an informal settlement conference must be in writing and must be filed with the Docket Supervisor, Arizona Department of Water Resources, 3550 North Central Avenue, Fourth Floor, Phoenix, Arizona 85012 not later than twenty (20) days before the hearing date. The enclosed Notice of Appeal form includes a place for you to request an informal settlement conference. If you file a timely request for an informal settlement conference, the Department will give you written notice of the time and place for the settlement conference. An informal settlement conference must be held within fifteen (15) days after the request is filed.

If an informal settlement conference is held, a person with the authority to act on behalf of the Department will represent the Department at the conference. The parties participating in the settlement conference will waive their right to object to the participation of the Department's representative in the final administrative decision. Statements, either written or oral, made by the appellant at the conference, including a written document, created or expressed solely for the purpose of settlement negotiations, are inadmissible in any subsequent administrative hearing.

#### **III. Agency Contact Person**

If you have any questions regarding the appeals process, or the process for requesting an informal settlement conference, please contact Kathleen Donoghue, Docket Supervisor, at (602) 771-8472.



EXHIBIT

A-16  
ADMITTED

# **Exhibit A-16**

(Pages of August 10, 2007  
Hydrogeologic Report)

Ridgeline Water Company, L.L.C.  
Docket No. W-20589A-08-0173



**CHUCK M. DICKENS**  
**CONSULTING HYDROGEOLOGIST**



LICENSED GEOLOGIST  
ARIZONA 14510  
CALIFORNIA 3647

12330 E. SNYDER ROAD  
TUCSON, ARIZONA 85749  
PHONE / FAX: 520-749-4124  
PHONE: 520-731-6111

**HYDROGEOLOGIC REPORT**

*In Support of Application for  
Analysis of Assured Water Supply*

**RIDGELINE ESTATES SUBDIVISION**

**PIMA COUNTY, ARIZONA**

**Prepared for**

**POLLUX PROPERTIES , Inc.**  
**Mr. Patrick Nikitenko**  
**Project Manager**  
**Tucson, Arizona**

**August 10, 2007**



contribution from the pumped well was about 7.25 feet and drawdown contribution from the distance image well was limited to 0.76 feet.

Assuming a static water level depth of 412 feet and a computed drawdown of 8 feet, the projected maximum water level depth would be limited to about 420 feet. Based on the fact that minimal groundwater pumpage currently - occurs within a five mile radius of the project supply well, it is assumed that no declining trend in groundwater levels should be considered. This projected depth is well above the ADWR depth limit of 1,000 feet.

## **CHEMICAL CHARACTER OF GROUNDWATER**

Groundwater samples were collected from both project supply wells and submitted to Turner Laboratories in Tucson for analysis of the ADEQ *new source approval* list of constituents. Groundwater samples were collected from well no. 1 on May 2, 2007 and well no. 2 on May 10, 2007. Samples were collected from both wells after pumping each well for about 24 hours at a rate of 150 gpm. A copy of the new source approval lab reports are presented in Appendix C.

### ***Well No. 1***

Laboratory Analysis of samples collected from well no. 1 indicate that the groundwater is good in quality and will meet federal and state drinking water standards. Groundwater pumped from well no. 1 is a calcium - bicarbonate type water, with calcium being the predominant cation and bicarbonate the predominant anion. The total dissolved solids content of the groundwater pumped from well no. 1 was reported at 250 milligrams per liter ( mg/l ).

No arsenic or nitrate ( as N ) were detected in the groundwater pumped from well no. 1. Fluoride was reported at a low concentration of 0.17 mg/l. The drinking water limit for fluoride is 4.0 mg/l.

No synthetic organic compounds were detected. No elevated concentrations of radiochemical compounds were reported.

The temperature of the groundwater pumped from well no. 1 was measured at 78 degrees F, and the field pH measured at 7.2.

### ***Well No. 2***

Laboratory analyses of samples collected from well no. 2 indicate that the groundwater pumped from well no. 2 is good in quality and will meet federal and state drinking water standards. Groundwater pumped from well no. 2 is a calcium - bicarbonate type water. The total dissolved solids content of the groundwater pumped from well no. 2 was reported at 270 mg/l.





No arsenic or nitrate were detected. Fluoride was detected at a low concentration of 0.25 mg/l.

No synthetic organic compounds were detected other than a very low concentration of toluene at 0.0014 mg/l. The drinking water limit ( maximum contaminant level – MCL ) for toluene is 1.0 mg/l. The occurrence of low level concentrations of toluene in the groundwater is undoubtedly a residual of the well drilling and test pumping process.

No elevated concentrations of radiochemical compounds were reported.

The temperature of the groundwater pumped from well no. 2 stabilized at about 80 degrees F. The field pH stabilized at about 7.0.





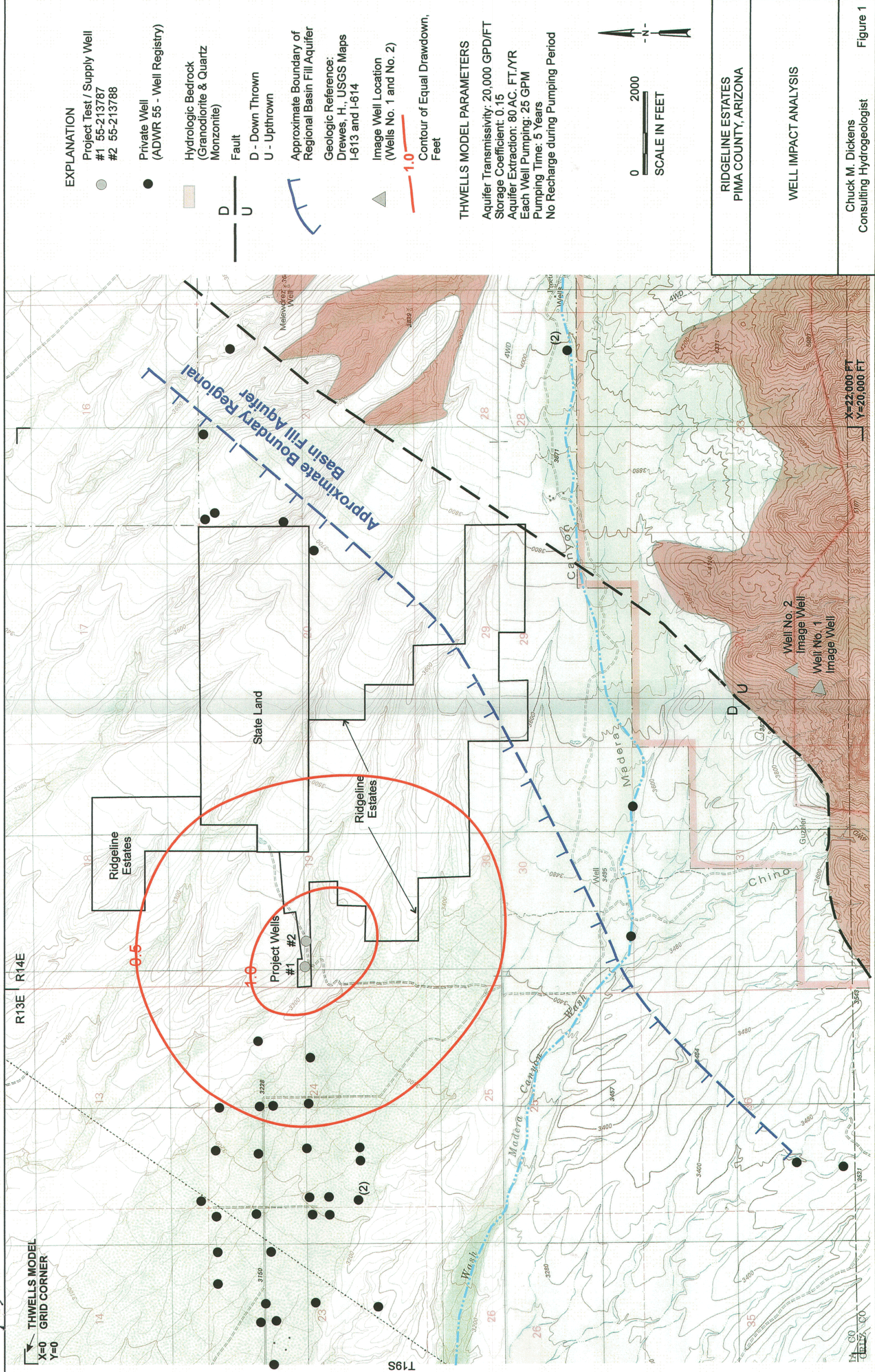


# **Exhibit A-17**

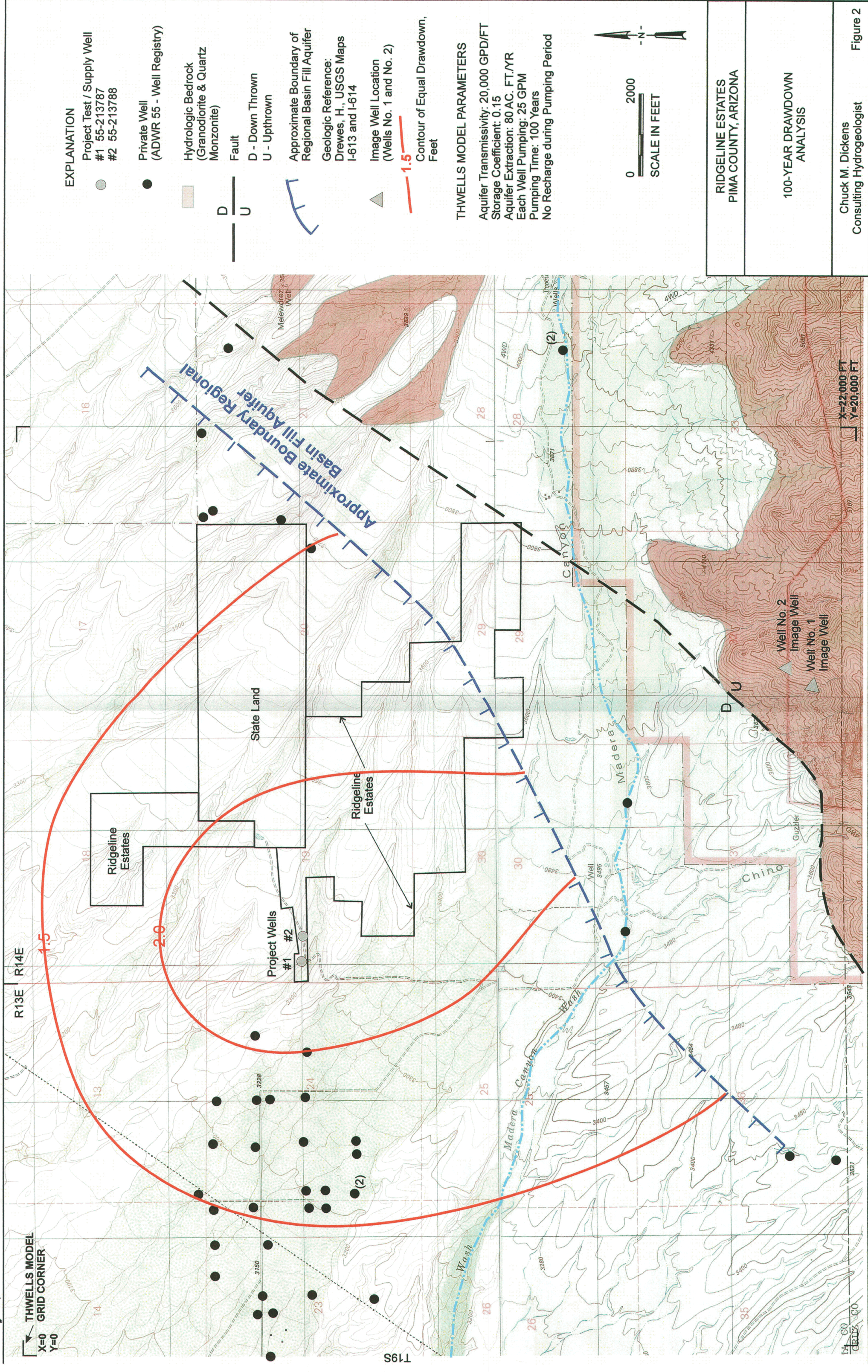
(September 2008 Well Impact Analysis)

Ridgeline Water Company, L.L.C.  
Docket No. W-20589A-08-0173









## Consulting Hydrogeologist



S-1

MEMORANDUM

LEGAL

RECEIVED

2008 AUG 14 P 4:40

AZ CORP COMMISSION  
DOCKET CONTROL

TO: Docket Control  
Arizona Corporation Commission

FROM: Ernest G. Johnson  
Director  
Utilities Division

EA for EGJ

Date: August 14, 2008

RE: STAFF REPORT FOR THE APPLICATION OF RIDGELINE WATER  
COMPANY, L.L.C. FOR A CERTIFICATE OF CONVENIENCE AND  
NECESSITY (DOCKET NO. W-20589A-08-0173)

Attached is the Staff Report for the application of Ridgeline Water Company, L.L.C. for  
a Certificate of Convenience and Necessity. Staff recommends denial.

EGJ:KMS:red

Originator: Kiana M. Sears

Attachment: Original and 13 Copies



RECEIVED

AUG 15 2008

LEGAL DIV.  
ARIZ. CORPORATION COMMISSION

FILE COPY



Service List for: Ridgeline Water Company, L.L.C.  
Docket No. W-20589A-08-0173

Mr. Lawrence V. Robertson, Jr.  
Post Office Box 1448  
Tubac, Arizona 85646

Mr. Jeffrey S. Utsch  
Ridgeline Water Company, L.L.C.  
6141 North Pomona Road  
Tucson, Arizona 85704

Ms. Janice Alward  
Chief, Legal Division  
Arizona Corporation Commission  
1200 West Washington Street  
Phoenix, Arizona 85007

Mr. Ernest G. Johnson  
Director, Utilities Division  
Arizona Corporation Commission  
1200 West Washington Street  
Phoenix, Arizona 85007

Ms. Lyn Farmer  
Chief, Hearing Division  
Arizona Corporation Commission  
1200 West Washington Street



STAFF REPORT  
UTILITIES DIVISION  
ARIZONA CORPORATION COMMISSION

RIDGELINE WATER COMPANY, L.L.C.  
DOCKET NO. W-20589A-08-0173

APPLICATION FOR A CERTIFICATE OF  
CONVENIENCE & NECESSITY

AUGUST 14, 2008



## STAFF ACKNOWLEDGMENT

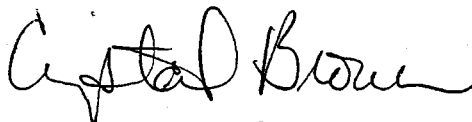
The Staff Report for Ridgeline Water Company, L.L.C., Docket No.W-20589A-08-0173 was the responsibility of the Staff members listed below. Kiana M. Sears prepared the Staff Report, Katrin Stukov prepared the Engineering Report and Crystal Brown prepared the Financial and Regulatory Report.



Kiana M. Sears  
Executive Consultant I



Katrin Stukov  
Utilities Engineer



Crystal Brown  
Public Utilities Analyst V



**EXECUTIVE SUMMARY**  
**RIDGELINE WATER COMPANY, L.L.C.**  
**DOCKET NO. W-20589A-08-0173**

On March 21, 2008, Ridgeline Water Company, L.L.C. ("Ridgeline" or "Company") filed an application with the Arizona Corporation Commission ("ACC" or "Commission") for a Certificate of Convenience and Necessity ("CC&N"). Staff has recommended denial of Ridgeline's application for a CC&N. The requested area is known as Ridgeline Estates and includes approximately 632 acres of land, owned by Pollux Properties, L.L.C. in Pima County, southwest of Tucson. Ridgeline Estates will consist of 136 single family residential units on lots of 4 to 5 acres.

The Arizona Department of Environmental Quality ("ADEQ") or in this case the Pima County Department of Environmental Quality ("PDEQ") monitors compliance. There are currently no plant facilities so a compliance status is not warranted at this time. Ridgeline's proposed system will be located in the Tucson Active Management Area ("AMA"), and will be subject to the Tucson AMA reporting requirements.

Ridgeline Water Company, L.L.C., is a wholly owned subsidiary of Pollux Properties, L.L.C. ("Pollux" or "Parent Company"). Ridgeline provided its Parent Company's unaudited balance sheet and income statement for the year ended December 31, 2007. These financial statements reported total assets of approximately \$3.97 million, total liabilities of approximately \$3.96 million, total equity of \$15,639 and net income of \$703. Because of the highly leveraged nature of the Parent Company, coupled by the Company's lack of technical and managerial experience with operating a water utility, Staff recommends denial. Staff is concerned because of the Company's financials do not demonstrate that the Company has the ability to sustain itself thereby placing its customers at risk.

**STAFF RECOMMENDATIONS**

Staff recommends denial of Ridgeline's CC&N based on Staff's review of the company's financials. However, should the Commission decide to grant a CC&N to Ridgeline, Staff would make the following recommendations:

1. , Staff recommends that the Company file with Docket Control, as a compliance item in this docket, a copy of the Approval to Construct issued by PDEQ for water system facilities needed to serve the Ridgeline Estates development within two years of the effective date of the decision in this case.
2. Staff recommends that the Company adopt Staff's typical and customary depreciation rates in the accounts listed in Table A of the Engineering Report.
3. Staff recommends that the Company adopt Staff's recommended service line and meter installation charges as delineated in Table B of the Engineering Report.



4. Staff recommends that the Company file a revised curtailment tariff with Docket Control, as a compliance item in this same docket, within 45 days after the effective date of the decision in this case for the review and certification of Staff. Staff further recommends that this tariff includes a restriction for operation of a standpipe in conformance with the sample tariff found on the Commission's web site at [www.azcc.gov/divisions/utilities/forms/CurtailmentTariffStandard.pdf](http://www.azcc.gov/divisions/utilities/forms/CurtailmentTariffStandard.pdf)
5. Staff recommends that the Company file a backflow prevention tariff with Docket Control, as a compliance item in this same docket, within 45 days after the effective date of the decision in this case for the review and certification of Staff. Staff further recommends that the tariff shall generally conform to the sample tariff found posted on the Commission's website at [www.azcc.gov/divisions/utilities/forms/crossconnectbackflow.pdf](http://www.azcc.gov/divisions/utilities/forms/crossconnectbackflow.pdf). Staff recognizes that the Company may need to make minor modifications to the sample tariff according to its specific management, operational, and design requirements as necessary and appropriate.
6. Staff recommends Ridgeline Water Company, L.L.C. be required to obtain a performance bond or irrevocable sight draft letter of credit for \$250,000, before the Company serves its first customer and file evidence of such bond or irrevocable sight draft letter of credit in Docket Control as a compliance item in this docket.
7. Staff recommends that approval of Ridgeline's CC&N be made conditional upon Ridgeline obtaining Staff's recommended capital structure by the end of the fifth year of operation.
8. Staff recommends approval of the Staff recommended rates and charges as shown in Schedule CSB-W5 in the Financial and Regulatory Analysis Section Report. In addition to collection of its regular rates, Ridgeline may collect from its customers a proportionate share of any privilege, sales or use tax.
9. Staff recommends Ridgeline be ordered to notify the Commission, through Docket Control, within 15 days of providing services to its first customers.
10. Staff recommends Ridgeline be required to file a rate application no later than six months following the fifth anniversary of the date the Company begins providing service to its first customers.
11. Staff recommends Ridgeline be required to maintain its books and records in accordance with the National Association of Regulatory Utility Commissioners Uniform System of Accounts for Water and Wastewater Utilities.
12. Staff recommends that the Ridgeline file with Docket Control, as a compliance item in the same docket, a copy of the Developer's Certificate of Assured Water, for the area being requested, within two years after the effective date of the decision in this case.



13. Staff further recommends that any Commission's Decision granting the requested CC&N to Ridgeline be considered null and void, after due process, should Ridgeline fail to meet the conditions listed in Nos. 1, 7, 9, 10, and 12 within the time specified.



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## **INTRODUCTION**

On March 21, 2008, Ridgeline Water Company, L.L.C. ("Ridgeline" or "Company") filed an application with the Arizona Corporation Commission ("Commission") for a Certificate of Convenience and Necessity ("CC&N"). The requested area is known as Ridgeline Estates and includes approximately 632 acres of land, owned by Pollux Properties, L.L.C. in Pima County, southwest of Tucson. Ridgeline Estates will consist of 136 single family residential units on lots of 4 to 5 acres. The Company is a corporation in good standing with the Corporations Division of the Commission and has no outstanding compliance issues in the records of the Compliance Section of the Utilities Division.

## **PROPOSED WATER SYSTEM**

The Company is proposing to construct a new water system to service Ridgeline Estates. As part of this application, Ridgeline submitted a design report prepared by Greg Carlson Engineering, L.L.C. for the proposed water distribution system, and a groundwater study performed by Chuck M. Dickens for the two production wells.

As proposed, the new water system will consist of the following major components: two wells with an estimated combined production capacity of 400 gallons per minute, three storage tanks with a minimum total storage capacity of 196,840 gallons, one 5,000 gallon pressure tank, six booster pumps and water distribution system, including fire protection. The proposed water system will be divided into five pressure zones.

According to the Company, construction of the water system will begin in 2010 and will be completed over a twelve month period. Based on Company projections it will be serving 34 customers in the first year and 136 customers by the end of the fifth year in the requested area.

## **ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY ("ADEQ")**

ADEQ or its formally delegated agent, the Pima County Department of Environmental Quality ("PDEQ") monitors for compliance. The Company's proposed water system does not have any plant facilities yet, therefore, the PDEQ compliance status is not applicable at this time.

## **ARIZONA DEPARTMENT OF WATER RESOURCES ("ADWR")**

There is no ADWR compliance status to report at this time. The Company's proposed water system will be located in the Tucson Active Management Area ("AMA") and will be subject to the Tucson AMA reporting requirements. The Company will be subject to ADWR filing of System Water Plans, which includes a Water Supply Plan, Drought Preparedness Plan and a Water Conservation Plan, per Arizona Revised Statutes § 45-341-343. The Company submitted a copy of the ADWR Analysis of Assured Water Supply which indicated there is availability of water for the proposed Ridgeline Estates development.



## **CURTAILMENT TARIFF**

The curtailment tariff submitted by the Company with its application did not include the standard restriction suspending standpipe service during Stage 3 and 4 curtailments. Staff recommends that the Company file a revised curtailment tariff that prohibits the use of standpipe service during Stage 3 and 4 curtailments.

## **BACKFLOW PREVENTION TARIFF**

The Company's application did not include a backflow prevention tariff. Staff recommends that the Company submit a backflow prevention tariff for its system.

## **COST ANALYSIS**

### *Construction Cost Estimate*

The submitted construction cost estimate prepared by Thomas J. Bourassa, C.P.A. and Greg Carlson Engineering included spreadsheets with the breakdown of the proposed plant facility costs and other cost information, at a total projected cost of \$3,928,723. A breakdown of this cost by major category is as follows:

<b>Item</b>	<b>Cost</b>
Water Distribution System	\$ 3,174,714
Contingency 10%	\$ 317,471
Wells	\$ 235,856
Studies	\$ 4,889
Land	\$ 152,004
Franchise	\$ 43,788
Total	\$ 3,928,723

The Company is planning to fund the proposed plant facilities by using a combination of funds provided by the developer, in the form of advances in aid of construction and common equity through the use of the developer's Main Extension Agreements and/or Off-site Facilities Agreements.

## **PROPOSED RATES AND CHARGES**

The Company included main extensions in the service charges section of its proposed tariff. Staff removed the main extensions as main extension agreements are not tariff items and must be submitted to the Commission for review and approval per Rule R14-2-406. Staff reviewed the remainder of Ridgeline's proposed service charges and found them to be reasonable.



## **WATER DEPRECIATION RATES**

Staff has developed typical and customary depreciation rates within a range of anticipated equipment life. The depreciation rate table submitted by the Company with this application deviates from Staff's typical and customary water depreciation rate table. Staff recommends that the Company adopt Staff's typical and customary depreciation rates in the Engineering Report.

## **FINANCIAL CAPABILITY TO PROVIDE REQUESTED SERVICES**

Ridgeline Water Company, L.L.C., is a wholly owned subsidiary of Pollux Properties, L.L.C. ("Pollux" or "Parent Company"). Ridgeline provided its Parent Company's unaudited balance sheet and income statement for the year ended December 31, 2007. These financial statements reported total assets of approximately \$3.97 million, total liabilities of approximately \$3.96 million, total equity of \$15,639 and net income of \$703.

The Company plans to finance the construction and operation of the water system with a combination of approximately \$1.8 million in common stock and \$2 million in advances in aid of construction ("AIAC") during the first five years. If the Company experiences financial difficulty during this time as a result of not issuing all or part of its \$1.8 million in common stock, Staff anticipates that the Parent Company would provide the additional funds needed to construct and operate Ridgeline.

The financial statements, however, show that the Parent Company may not have sufficient resources to fund Ridgeline's cash shortages. The Parent Company is highly leveraged and had total equity of \$15,639 and net income of \$703 as of December 31, 2007. This problem may ultimately lead to Ridgeline's inability to provide adequate water service.

Ultimately, Staff is seriously concerned about Ridgeline's ability to sustain itself as a public service corporation. Ridgeline's Parent Company is not only highly leverage, which is an eminent concern but lacks previous water utility experience. The absence of experience also places the Company at a disadvantage when it comes to preparing for unexpected events that Ridgeline may experience. Hence, Staff is not only looking at the current financial picture but is cognizant of the fact that during the life of a company, unforeseeable and unexpected expenses arise.

Therefore, after considering the financial position of Ridgeline and the Company's lack of utility experience, Staff is recommending denial of this application. In the event the Commission decides to approve a CC&N for Ridgeline, Staff would recommend the posting of a performance bond or an irrevocable sight draft letter of credit to minimize the risk to Ridgeline's customer.

## **PERFORMANCE BOND**

Due to the current financials of the Parent Company and the fact that Ridgeline has no



prior experience in operating a public utility, a performance bond or irrevocable sight draft letter of credit in the amount of \$250,000 is being recommended by Staff, should the Commission grant Ridgeline's application. It is further recommended that the performance bond or irrevocable sight draft letter of credit be obtained before the first customer is served, and that evidence of such be filed in Docket Control, as a compliance item in this docket. This is consistent with the amount of the performance bond approved in the Woodruff Water and Wastewater CC&N (Docket Nos. W-04264A-04-0438, et al) wherein the applicant had no previous utility experience and had a long track record of investing and developing real estate.

### **PROJECTED FAIR VALUE RATE BASE ("FVRB")**

Consistent with Commission rules, Ridgeline's filing included the required five-year projections for plant values, operating revenues, operating expenses, and number of customers. Projections and assumptions are necessary to establish a FVRB and initial rates because historical operating data does not exist. Since this is a new CC&N, Staff evaluated the projected original cost rate base ("OCRB") as the FVRB.

#### *Projected Plant in Service*

Ridgeline provided schedules showing the elements of the projected OCRB as shown on Schedule CSB-W2, pages 1 and 2 in the Financial & Regulatory Analysis ("FRA") Report. Staff reviewed the projected plant in service at the end of the fifth year and found it to be reasonable.

#### *Projected Accumulated Depreciation*

Staff reviewed Ridgeline's projected accumulated depreciation balance at the end of the fifth year and found that the Company inadvertently used 3.33 percent rather than the Staff recommended 8.33 percent depreciation rate for account No. 334, "Meters and Meter Installations." Further, the Company used a 5.00 percent depreciation rate for tanks included in account no. 330, "Distribution Reservoirs." The Company, in response to data request CSB 1-1, indicated that the tanks would be used for storage. Staff recommends a 5 percent depreciation rate for pressure tanks and a 2.22 percent depreciation rate for storage tanks.

Staff recalculated the accumulated depreciation using its recommended depreciation rates. The changes resulted in a \$35,512 decrease in accumulated depreciation as shown on Schedule CSB-W2, page 1 of the Finance & Regulatory Report.

#### *Advances In Aid of Construction*

Ridgeline's application projects that the net cumulative balance for AIAC will be \$2,154,468. Staff decreased the Company's AIAC by \$957,660 to reflect Staff's recommendation that Ridgeline should finance at least 70 percent of its plant with equity as presented on Schedule CSB-W2 in the Finance and Regulatory Report and discussed in greater detail in the "Capital Structure and Financial Soundness" section of this Staff Report.



## **PROJECTED OPERATING INCOME**

Ridgeline provided projected revenues and expenses for five years. Staff's analysis, while taking into account all of the years presented, is concentrated on the fifth year of operation when profitability is expected. Staff reviewed the revenue and expense projections and, with the exception of the depreciation expense, found them to be reasonable.

Staff's adjustments to the depreciation rates are discussed in the "Projected Accumulated Depreciation" section of this memorandum. Staff's adjustments decreased depreciation expense by \$7,891 as shown on Schedule CSB-W3 in the FRA Report.

## **CAPITAL STRUCTURE AND FINANCIAL SOUNDNESS**

Capital structure is an indicator of financial soundness. Undercapitalized investor owned utilities may result in rate bases that are too small to generate enough revenue to pay for operating expenses and fund capital improvements without extraordinarily high rates of return. Consequently, Staff has determined that a financially sound utility company, on average, should have no more than 30 percent AIAC and/or Contribution in Aid of Construction ("CIAC") in its capital structure.

At the end of the fifth year, Ridgeline's capital structure consists of no debt, 54.00 percent AIAC/CIAC, and 46.00 percent equity. Should the Commission approve a CC&N, Staff recommends 0.00 percent debt, 30.00 percent AIAC/CIAC, and 70.00 percent equity as shown on Schedule CSB-W4 in the Finance & Regulatory Report.

## **RATE DESIGN**

Schedule CSB-W5 in the FRA Report, presents a complete list of Ridgeline's proposed, and Staff's recommended rates and charges. The Company's projected revenue is derived from the residential customer class.

Ridgeline's proposed rate design distinguishes customer class by meter size. The monthly minimum charges vary by meter size and include no gallons. One commodity rate applies to all usage.

Should the Commission grant a CC&N, it should be noted that Staff's recommended rate design distinguishes customer class by meter size. The monthly minimum charges vary by meter size and include no gallons. The commodity rates are based on an inverted tier rate design that includes three tiers for residential and two for all other meter sizes. Staff's recommended rate design is guided by the Commission's goal to promote efficient water use and its practice of authorizing inverted tier rate designs.



### *Standpipe Service*

The Company listed "Standpipe or bulk water" service on its proposed rate design schedule with no cost associated with the service. The Company later clarified, in Appendix E of its response to Staff's second deficiency letter that, "Ridgeline Water Company is not proposing to offer standpipe water service." Therefore, Staff added a footnote on its rate design schedule (CSB-W5, page 2) to clarify the Company's intentions.

The Company included main extensions in the service charges section of its proposed tariff. Staff removed the main extensions as main extension agreements are not tariff items and must be submitted to the Arizona Corporation Commission for review and approval per Rule R14-2-406.

Staff recommends denial of Ridgeline's CC&N based on Staff's review of the Company's financials because of its highly leveraged Parent Company, coupled by the Company's lack of technical and managerial experience with operating a water utility.

### **STAFF RECOMMENDATIONS**

Staff recommends denial of Ridgeline's CC&N based on Staff's review of the Company's financials. Staff believes it is not in the public interest to approve this CC&N because the financials of the Company do not demonstrate that the Company has an ability to sustain itself, placing the customers in a position of considerable risk.

However, should the Commission decide to grant a CC&N to Ridgeline, Staff would make the following recommendations:

1. Staff recommends that the Company file with Docket Control, as a compliance item in this docket, a copy of the Approval to Construct issued by PDEQ for water system facilities needed to serve the Ridgeline Estates development within two years of the effective date of the decision in this case.
2. Staff recommends that the Company adopt Staff's typical and customary depreciation rates in the accounts listed in Table A of the Engineering Report.
3. Staff recommends that the Company adopt Staff's recommended service line and meter installation charges as delineated in Table B of the Engineering Report.
4. Staff recommends that the Company file a revised curtailment tariff with Docket Control, as a compliance item in this same docket, within 45 days after the effective date of the decision in this case for the review and certification of Staff. Staff further recommends that this tariff includes a restriction for operation of a standpipe in conformance with the sample tariff found on the Commission's web site at [www.azcc.gov/divisions/utilities/forms/CurtailmentTariffStandard.pdf](http://www.azcc.gov/divisions/utilities/forms/CurtailmentTariffStandard.pdf)



5. Staff recommends that the Company file a backflow prevention tariff with Docket Control, as a compliance item in this same docket, within 45 days after the effective date of the decision in this case for the review and certification of Staff. Staff further recommends that the tariff shall generally conform to the sample tariff found posted on the Commission's website at [www.azcc.gov/divisions/utilities/forms/crossconnectbackflow.pdf](http://www.azcc.gov/divisions/utilities/forms/crossconnectbackflow.pdf). Staff recognizes that the Company may need to make minor modifications to the sample tariff according to its specific management, operational, and design requirements as necessary and appropriate.
6. Staff recommends Ridgeline Water Company, L.L.C. be required to obtain a performance bond or irrevocable sight draft letter of credit for \$250,000, before the Company serves its first customer and file evidence of such bond or irrevocable sight draft letter of credit in Docket Control as a compliance item in this docket.
7. Staff recommends that approval of Ridgeline's CC&N be made conditional upon Ridgeline obtaining Staff's recommended capital structure by the end of the fifth year of operation.
8. , Staff recommends approval of the Staff recommended rates and charges as shown in Schedule CSB-W5 in the Financial and Regulatory Analysis Section Report. In addition to collection of its regular rates, Ridgeline may collect from its customers a proportionate share of any privilege, sales or use tax.
9. , Staff recommends Ridgeline be ordered to notify the Commission, through Docket Control, within 15 days of providing services to its first customers.
10. Staff recommends Ridgeline be required to file a rate application no later than six months following the fifth anniversary of the date the Company begins providing service to its first customers.
11. Staff recommends Ridgeline be required to maintain its books and records in accordance with the National Association of Regulatory Utility Commissioners Uniform System of Accounts for Water and Wastewater Utilities.
12. Staff recommends that the Ridgeline file with Docket Control, as a compliance item in the same docket, a copy of the Developer's Certificate of Assured Water, for the area being requested, within two years after the effective date of the decision in this case.
13. Staff further recommends that the Commission's Decision granting the requested CC&N to Ridgeline be considered null and void, after due process, should Ridgeline fail to meet the conditions listed in Nos. 1, 7, 9, 10, and 12 within the time specified.



## MEMORANDUM

TO: Kianna Sears  
Executive Consultant I - Utilities Division

FROM: Crystal Brown *CB*  
Public Utilities Analyst V - Utilities Division

DATE: June 25, 2008

RE: RIDGELINE WATER COMPANY, L.L.C.'S APPLICATION FOR A  
CERTIFICATE OF CONVENIENCE AND NECESSITY  
DOCKET NO. W-20589-08-0173

### Introduction

On March 21, 2008, Ridgeline Water Company, L.L.C. ("Ridgeline" or "Company") filed an application with the Arizona Corporation Commission ("Commission") for a Certificate of Convenience and Necessity ("CC&N") to provide public utility water service in Pima County, Arizona.

The application indicates that no customers are currently receiving service in the requested CC&N area. At the end of five years, Ridgeline projects that it will serve approximately 136 water customers.

Staff does not recommend approval of Ridgeline's CC&N as discussed in the "Financial Capability to Provide Requested Services" section of this Memorandum. However, should the Commission decide to approve the CC&N, Staff has made recommendations concerning the Company's revenue requirement, rate base, and rate design. Staff's recommended water rates are based on Ridgeline's fifth-year projections. Staff's recommended projected revenue of \$339,273 would generate operating income of \$185,227 resulting in an 8.00 percent rate of return on a Staff adjusted estimated original cost rate base ("OCRB") of \$2,315,342.

### Financial Capability to Provide Requested Services

Ridgeline Water Company, L.L.C., is a wholly owned subsidiary of Pollux Properties, L.L.C. ("Pollux" or "Parent Company"). Ridgeline provided its Parent Company's unaudited balance sheet and income statement for the year ended December 31, 2007. These financial statements reported total assets of approximately \$3.97 million, total liabilities of approximately \$3.96 million, total equity of \$15,639 and net income of \$703.



The Company plans to finance the construction and operation of the water system with a combination of approximately \$1.8 million in common stock and \$2 million in advances in aid of construction during the first five years. If the Company experiences financial difficulty during this time as a result of not issuing all or part of its \$1.8 million in common stock, Staff anticipates that the Parent Company would provide the additional funds needed to construct and operate Ridgeline. Based upon review of the financial statements provided, Staff found that the Parent Company may not have sufficient resources to fund Ridgeline's capital and operating cash shortages. The Parent Company is highly leveraged and had total equity of \$15,639 and net income of \$703 as of December 31, 2007. This problem may ultimately lead to Ridgeline's inability to provide adequate water service. Therefore, Staff has concluded that Ridgeline does not have adequate financial capability to provide the requested services.

#### **Projected Fair Value Rate Base ("FVRB")**

Consistent with Commission rules, Ridgeline's filing included the required five-year projections for plant values, operating revenues, operating expenses, and number of customers. Projections and assumptions are necessary to establish a fair value rate base ("FVRB") and initial rates because historical operating data does not exist. Since this is a new CC&N, Staff evaluated the projected OCRB as the FVRB.

#### **Projected Plant In Service**

Ridgeline provided schedules showing the elements of the projected OCRB as shown on Schedule CSB-W2, pages 1 and 2. Staff reviewed the projected plant in service at the end of the fifth year and found it to be reasonable.

#### **Projected Accumulated Depreciation**

Staff reviewed Ridgeline's projected accumulated depreciation balance at the end of the fifth year and found that the Company inadvertently used a 3.33 percent rather than the Staff recommended 8.33 percent depreciation rate for account no. 334, "Meters and Meter Installations." Further, the Company used a 5.00 percent depreciation rate for tanks included in account no. 330, "Distribution Reservoirs." The Company, in response to data request CSB 1-1, indicated that the tanks would be used for storage. Staff recommends a 5 percent depreciation rate for pressure tanks and a 2.22 percent depreciation rate for storage tanks.

Staff recalculated the accumulated depreciation using its recommended depreciation rates. The changes resulted in a \$35,512 decrease in accumulated depreciation as shown on Schedule CSB-W2, page 1.



Advances In Aid of Construction ("AIAC")

Ridgeline's application projects that the net cumulative balance for AIAC will be \$2,154,468. Staff decreased the Company's AIAC by \$957,660 to reflect Staff's recommendation that Ridgeline should finance at least 70 percent of its plant with equity as presented on Schedule CSB-W2, page 1 and discussed in greater detail in the "Capital Structure and Financial Soundness" section of this memorandum.

**Projected Operating Income**

Ridgeline provided projected revenues and expenses for five years. Staff's analysis, while taking into account all of the years presented, is concentrated on the fifth year of operation when profitability is expected. Staff reviewed the revenue and expense projections and, with the exception of the depreciation expense, found them to be reasonable.

Staff's adjustments to the depreciation rates are discussed in the "Projected Accumulated Depreciation" section of this memorandum. Staff's adjustments decreased depreciation expense by \$7,891 as shown on Schedule CSB-W3.

**Capital Structure and Financial Soundness**

Capital structure is an indicator of financial soundness. Undercapitalized investor owned utilities may result in rate bases that are too small to generate enough revenue to pay for operating expenses and fund capital improvements without extraordinarily high rates of return. Consequently, Staff has determined that a financially sound utility company, on average, should have no more than 30 percent AIAC and/or CIAC in its capital structure.

At the end of the fifth year, Ridgeline's capital structure consists of no debt, 54.00 percent AIAC/CIAC, and 46.00 percent equity. Staff recommends 0.00 percent debt, 30.00 percent AIAC/CIAC, and 70.00 percent equity as shown on Schedule CSB-W4.

Staff does not recommend approval of Ridgeline's CC&N, however, should the Commission decide to approve the CC&N, Staff recommends that approval of Ridgeline's CC&N be made conditional upon the Company obtaining Staff's recommended capital structure by the end of the fifth year of operation.

**Rate Design**

Schedule CSB-W5 presents a complete list of Ridgeline's proposed, and Staff's recommended rates and charges. The Company's projected revenue is derived from the residential customer class.



Ridgeline's proposed rate design distinguishes customer class by meter size. The monthly minimum charges vary by meter size and include no gallons. One commodity rate applies to all usage.

Staff does not recommend approval of Ridgeline's CC&N, however, should the Commission decide to approve the CC&N, Staff has made recommendations concerning the Company's rate design. Staff's recommended rate design distinguishes customer class by meter size. The monthly minimum charges vary by meter size and include no gallons. The commodity rates are based on an inverted tier rate design that includes three tiers for residential and two for all other meter sizes. Staff's recommended rate design is guided by the Commission's goal to promote efficient water use and its practice of authorizing inverted tier rate designs.

#### Standpipe Service

The Company listed "Standpipe or bulk water" service on its proposed rate design schedule with no cost associated with the service. The Company later clarified, in appendix E of its response to Staff's second deficiency letter that, "Ridgeline Water Company is not proposing to offer standpipe water service." Therefore, Staff added a footnote on its rate design schedule (CSB-W5, page 2) to clarify the Company's intentions.

#### Service Charges

The Company included main extensions in the service charges section of its proposed tariff. Staff removed the main extensions as main extension agreements are not tariff items and must be submitted to the Arizona Corporation Commission for review and approval per Rule R14-2-406. Staff reviewed the remainder of Ridgeline's proposed service charges and found them to be reasonable.

#### Recommendations

Staff does not recommend approval of Ridgeline's CC&N. However, should the Commission decide to approve the CC&N, Staff recommends:

1. That approval of Ridgeline's CC&N be made conditional upon Ridgeline obtaining Staff's recommended capital structure of 0.00 percent debt, 30.00 percent AIAC/CIAC, and 70.00 percent equity by the end of the fifth year of operation.
2. Approval of the Staff recommended rates and charges as shown in Schedule CSB-W5. In addition to collection of its regular rates, Ridgeline



may collect from its customers a proportionate share of any privilege, sales or use tax.

3. Ridgeline be ordered to notify the Commission, through Docket Control, within 15 days of providing services to its first customers.
4. Ridgeline be required to file a rate application no later than six months following the fifth anniversary of the date the Company begins providing service to its first customers.
5. Ridgeline be required to maintain its books and records in accordance with the National Association of Regulatory Utility Commissioners Uniform System of Accounts for Water and Wastewater Utilities.
6. Ridgeline be required to use the depreciation rates recommended by Staff for water utilities as recommended in the Engineering Report.



PROJECTED REVENUE REQUIREMENT

LINE NO.	DESCRIPTION	(A) COMPANY ORIGINAL COST	(B) COMPANY FAIR VALUE	(C) STAFF ORIGINAL COST	(D) STAFF FAIR VALUE
1	Adjusted Rate Base	\$ 1,322,170	\$ 1,322,170	\$ 2,315,342	\$ 2,315,342
2	Adjusted Operating Income (Loss)	\$ 116,246	\$ 116,246	\$ 113,659	\$ 113,659
3	Current Rate of Return (L2 / L1)	8.79%	8.79%	4.91%	4.91%
4	Required Rate of Return	8.79%	8.79%	8.00%	8.00%
5	Required Operating Income (L1 * L4)	\$ 116,246	\$ 116,246	\$ 185,227	\$ 185,227
6	Operating Income Deficiency / Excess (L5 - L2)	\$ -	\$ -	\$ 71,569	\$ 71,569
7	Gross Revenue Conversion Factor	1.0000	1.0000	1.0179	1.0179
8	Required Revenue Increase / Decrease (L7 * L6)	\$ -	\$ -	\$ 72,849	\$ 72,849
9	Fifth Year Revenue	\$ 266,424	\$ 266,424	\$ 266,424	\$ 266,424
10	Proposed Fifth Year Revenue (L8 + L9)	\$ 266,424	\$ 266,424	\$ 339,273	\$ 339,273
11	Required Increase in Revenue (%)	0.00%	0.00%	27.34%	27.34%



PROJECTED GROSS REVENUE CONVERSION FACTOR

LINE NO.	DESCRIPTION	(A)	(B)	(C)	(D)
<u>Calculation of Gross Revenue Conversion Factor:</u>					
1	Revenue	100.0000%			
2	Uncollectible Factor (Line 11)	0.0000%			
3	Revenues (L1 - L2)	100.0000%			
4	Combined Federal and State Tax Rate (Line 17) + Property Tax Factor (Line 22)	1.7570%			
5	Subtotal (L3 - L4)	98.2430%			
6	Revenue Conversion Factor (L1 / L5)	1.017884			
<u>Calculation of Uncollectible Factor:</u>					
7	Unity	0.0000%			
8	Combined Federal and State Tax Rate (Line 17)	0.0000%			
9	One Minus Combined Income Tax Rate (L7 - L8)	0.0000%			
10	Uncollectible Rate	0.0000%			
11	Uncollectible Factor (L9 * L10)	0.0000%			
<u>Calculation of Effective Tax Rate:</u>					
12	Operating Income Before Taxes (Arizona Taxable Income)	0.0000%			
13	Arizona State Income Tax Rate	0.0000%			
14	Federal Taxable Income (L12 - L13)	0.0000%			
15	Applicable Federal Income Tax Rate (Line 44)	0.0000%			
16	Effective Federal Income Tax Rate (L14 x L15)	0.0000%			
17	Combined Federal and State Income Tax Rate (L13 + L16)	0.0000%			
<u>Calculation of Effective Property Tax Factor</u>					
18	Unity	100.0000%			
19	Combined Federal and State Tax Rate (Line 17)	0.0000%			
20	One Minus Combined Income Tax Rate (L18 - L19)	100.0000%			
21	Property Tax Factor (All-16, L24)	1.7570%			
22	Effective Property Tax Factor (L 21 * L 22)	1.7570%			
23	Combined Federal and State Tax and Property Tax Rate (L17+L22)		1.7570%		
24	Required Operating Income	\$ 185,227			
25	Adjusted Fifth Year Operating Income (Loss)	\$ 113,659			
26	Required Increase in Operating Income (L24 - L25)		\$ 71,569		
27	Income Taxes on Recommended Revenue (Col. (D), L52)	\$ -			
28	Income Taxes on Fifth Year, Staff Adjusted Revenue (Col. (B), L52)	\$ -			
29	Required Increase in Revenue to Provide for Income Taxes (L27 - L28)		\$ -		
30	Recommended Revenue Requirement	\$ 339,273			
31	Uncollectible Rate (Line 10)	0.0000%			
32	Uncollectible Expense on Recommended Revenue (L24 * L25)	\$ -			
33	Adjusted Fifth Year Uncollectible Expense	\$ -			
34	Required Increase in Revenue to Provide for Uncollectible Exp. (L32 - L33)		\$ -		
35	Property Tax with Recommended Revenue	\$ 13,013			
36	Property Tax on Fifth Year, Staff Adjusted Revenue	\$ 11,733			
37	Increase in Property Tax Due to Increase in Revenue		\$ 1,280		
38	Total Required Increase in Revenue (L26 + L30 + L34+L37)		\$ 72,849		
<u>Calculation of Income Tax:</u>					
39	Revenue	\$ -	\$ -	\$ -	
40	Operating Expenses Excluding Income Taxes	\$ -	\$ -	\$ -	
41	Synchronized Interest (L47)	\$ -	\$ -	\$ -	
42	Arizona Taxable Income (L36 - L317- L38)	\$ -	\$ -	\$ -	
43	Arizona State Income Tax Rate	0.0000%		0.0000%	
44	Arizona Income Tax (L39 x L40)	\$ -	\$ -	\$ -	
45	Federal Taxable Income (L33 - L35)	\$ -	\$ -	\$ -	
46	Federal Tax on First Income Bracket (\$1 - \$50,000) @ 15%	\$ -	\$ -	\$ -	
47	Federal Tax on Second Income Bracket (\$50,001 - \$75,000) @ 25%	\$ -	\$ -	\$ -	
48	Federal Tax on Third Income Bracket (\$75,001 - \$100,000) @ 34%	\$ -	\$ -	\$ -	
49	Federal Tax on Fourth Income Bracket (\$100,001 - \$335,000) @ 39%	\$ -	\$ -	\$ -	
50	Federal Tax on Fifth Income Bracket (\$335,001 - \$10,000,000) @ 34%	\$ -	\$ -	\$ -	
51	Total Federal Income Tax	\$ -	\$ -	\$ -	
52	Combined Federal and State Income Tax (L35 + L42)	\$ -	\$ -	\$ -	
53	Applicable Federal Income Tax Rate [Col. (D), L42 - Col. (B), L42] / [Col. (C), L36 - Col. (A), L36]				#DIV/0!
<u>Calculation of Interest Synchronization:</u>					
54	Rate Base	\$ 5,655,222			
55	Weighted Average Cost of Debt	0.00%			
56	Synchronized Interest (L54 X L55)	\$ -			



**PROJECTED ORIGINAL COST RATE BASE**

	Per Company Year 1	Per Company Year 2	Per Company Year 3	Per Company Year 4	Per Company Year 5	Staff Adjustments	Ref	Staff as Adjusted
Plant in Service	\$ 3,928,723	\$ 3,928,723	\$ 3,928,723	\$ 3,928,723	\$ 3,928,723	\$0		\$3,928,723
Less: Accum. Depreciation	50,232	150,695	251,158	351,622	452,085	(35,512)	A	\$416,573
<b>Net Plant</b>	<b>\$3,878,491</b>	<b>\$3,778,028</b>	<b>\$3,677,565</b>	<b>\$3,577,101</b>	<b>\$3,476,638</b>	<b>\$35,512</b>		<b>\$3,512,150</b>
Less: Advances in Aid of Constr (net of refunds)	2,153,284	2,149,869	2,139,793	2,123,057	2,099,660	(\$957,660)	B	\$1,142,000
Meter and Service Line Adv (net of refunds)	17,680	33,592	47,736	60,112	54,808	0		54,808
<b>Total Advances</b>	<b>\$2,170,964</b>	<b>\$2,183,461</b>	<b>\$2,187,529</b>	<b>\$2,183,169</b>	<b>\$2,154,468</b>	<b>(\$957,660)</b>		<b>\$1,196,808</b>
Contributions Gross	\$0	\$0	\$0	\$0	\$0	\$0	\$	-
Less: Amortization of CIAC	0	0	0	0	0	0		0
<b>Net CIAC</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>		<b>\$0</b>
Less: Customer Deposits	0	0	0	0	0	0		\$0
<b>Total Deductions</b>	<b>\$2,170,964</b>	<b>\$2,183,461</b>	<b>\$2,187,529</b>	<b>\$2,183,169</b>	<b>\$2,154,468</b>	<b>(\$957,660)</b>		<b>\$1,196,808</b>
Plus:								
Working Capital	\$0	\$0	\$0	\$0	\$0	\$0		\$0
<b>Total Additions</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>		<b>\$0</b>
<b>Rate Base</b>	<b>\$1,707,527</b>	<b>\$1,594,567</b>	<b>\$1,490,036</b>	<b>\$1,393,932</b>	<b>\$1,322,170</b>	<b>\$993,172</b>		<b>\$2,315,342</b>

**Explanation of Adjustment:**

A - To reflect Staff's calculation of accumulated depreciation expense based upon Staff's use of an 8.33% depreciation rate used for meters as shown on Schedule CSB-W2 pages 3 through 7.

B - To reflect Staff's proposed capital structure of no more than 30% contributions as shown on Schedule CSB-W4.



Ridgeline Water Company, LLC  
Docket No. W-20589A-08-0173  
Projected Fifth Year of Operation

DETAIL OF UTILITY PLANT

Acct. No.	Description	Per Company Year 1	Per Company Year 2	Per Company Year 3	Per Company Year 4	Per Company Year 5	Staff Adjustments	Ref	Staff as Adjusted
301	Organization	\$ -	\$ -	\$ -	\$ -	\$ -	-		\$ -
302	Franchises	43,788	43,788	43,788	43,788	43,788	-		43,788
303	Land & Land Rights	152,004	152,004	152,004	152,004	152,004	-		152,004
304	Structures & Improvements	22,000	22,000	22,000	22,000	22,000	-		22,000
307	Wells & Springs	235,856	235,856	235,856	235,856	235,856	-		235,856
311	Pumping Equipment	89,870	89,870	89,870	89,870	89,870	-		89,870
320	Water Treatment, Plant	-	-	-	-	-	-		-
330.1	Distribution Reservoirs, Storage	344,410	344,410	344,410	344,410	344,410	-		344,410
330.2	Distribution Reservoirs, Pressure	-	-	-	-	-	-		-
331	Transmission & Distribution Mains	2,702,753	2,702,753	2,702,753	2,702,753	2,702,753	-		2,702,753
333	Services	103,143	103,143	103,143	103,143	103,143	-		103,143
334	Meters & Meter Installations	33,660	33,660	33,660	33,660	33,660	-		33,660
335	Hydrants	191,400	191,400	191,400	191,400	191,400	-		191,400
336	Backflow Prevention Devices	-	-	-	-	-	-		-
340	Office Furniture & Equipment	-	-	-	-	-	-		-
340	Office Furniture & Equip, Computers	-	-	-	-	-	-		-
341	Transportation Equipment	-	-	-	-	-	-		-
342	Stores Equipment	-	-	-	-	-	-		-
343	Tools, Shop, & Garage Equipment	-	-	-	-	-	-		-
344	Laboratory Equipment	-	-	-	-	-	-		-
345	Power Operated Equipment	-	-	-	-	-	-		-
346	Communication Equipment	-	-	-	-	-	-		-
347	Miscellaneous Equipment	-	-	-	-	-	-		-
348	Other Tangible Plant	9,839	9,839	9,839	9,839	9,839	-		9,839
TOTALS		\$ 3,928,723	\$ 3,928,723	\$ 3,928,723	\$ 3,928,723	\$ 3,928,723	\$0		\$ 3,928,723



Ridgeline Water Company, LLC  
Docket No. W-20589A-08-0173  
Projected Fifth Year of Operation

PROJECTED PLANT AND ACCUMULATED DEPRECIATION

	Year 1 Beginning Original Cost	Year 1 Beginning Accumulated Depreciation	Depreciation Rates	Year 1 Additions	Year 1 Retirements	Year 1 Depr. Expense	Year 1 Ending Total Cost	Year 1 Ending Accumulated Depreciation
301 Organization	\$0	\$0	0.00%	\$0	\$0	\$0	\$0	\$0
302 Franchises	0	0	0.00%	43,788	0	0	43,788	0
303 Land & Land Rights	0	0	0.00%	152,004	0	0	152,004	0
304 Structures & Improvements	0	0	3.33%	22,000	0	366	22,000	366
307 Wells & Springs	0	0	3.33%	235,856	0	3,927	235,856	3,927
311 Pumping Equipment	0	0	12.50%	89,870	0	5,617	89,870	5,617
320 Water Treatment, Plant	0	0	3.33%	0	0	0	0	0
330.1 Distribution Reservoirs, Storage	0	0	2.22%	344,410	0	3,823	344,410	3,823
330.2 Distribution Reservoirs, Pressure	0	0	5.00%	0	0	0	0	0
331 Transmission & Distribution Mains	0	0	2.00%	2,702,753	0	27,028	2,702,753	27,028
333 Services	0	0	3.33%	103,143	0	1,717	103,143	1,717
334 Meters & Meter Installations	0	0	8.33%	38,660	0	1,402	38,660	1,402
335 Hydrants	0	0	2.00%	191,400	0	1,914	191,400	1,914
336 Backflow Prevention Devices	0	0	6.67%	0	0	0	0	0
340 Office Furniture & Equipment	0	0	6.67%	0	0	0	0	0
340.1 Office Furniture & Equip, Computers	0	0	20.00%	0	0	0	0	0
341 Transportation Equipment	0	0	20.00%	0	0	0	0	0
342 Stores Equipment	0	0	4.00%	0	0	0	0	0
343 Tools, Shop, & Garage Equipment	0	0	5.00%	0	0	0	0	0
344 Laboratory Equipment	0	0	10.00%	0	0	0	0	0
345 Power Operated Equipment	0	0	5.00%	0	0	0	0	0
346 Communication Equipment	0	0	10.00%	0	0	0	0	0
347 Miscellaneous Equipment	0	0	10.00%	0	0	0	0	0
348 Other Tangible Plant	0	0	10.00%	9,839	0	492	9,839	492
Year 1 Totals	\$0	\$0		\$3,928,723	\$0	\$46,286	\$3,928,723	\$46,286



PROJECTED PLANT AND ACCUMULATED DEPRECIATION

	Year 2	Year 2 Retirements			Fully Depreciated	Year 2		Year 2 Total Cost	Year 2 Accumulated Depreciation	Year 2 Net Book Value
	Additions Cost	Cost		Depr. Expense		Total Cost				
		Cost	Depreciation							
301 Organization	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
302 Franchises	\$0	\$0	\$0	\$0	\$0	\$0	\$43,788	\$0	\$0	\$43,788
303 Land & Land Rights	\$0	\$0	\$0	\$0	\$0	\$0	\$152,004	\$0	\$0	\$152,004
304 Structures & Improvements	\$0	\$0	\$0	\$0	\$0	\$733	\$22,000	\$1,099	\$1,099	\$20,901
307 Wells & Springs	\$0	\$0	\$0	\$0	\$0	\$7,854	\$235,856	\$11,781	\$11,781	\$224,075
311 Pumping Equipment	\$0	\$0	\$0	\$0	\$0	\$11,234	\$89,870	\$16,851	\$16,851	\$73,019
320 Water Treatment, Plant	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
330.1 Distribution Reservoirs, Storage	\$0	\$0	\$0	\$0	\$0	\$7,646	\$344,410	\$11,469	\$11,469	\$332,941
330.2 Distribution Reservoirs, Pressure	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
331 Transmission & Distribution Mains	\$0	\$0	\$0	\$0	\$0	\$54,055	\$2,702,753	\$81,083	\$81,083	\$2,621,670
333 Services	\$0	\$0	\$0	\$0	\$0	\$3,435	\$103,143	\$5,152	\$5,152	\$97,991
334 Meters & Meter Installations	\$0	\$0	\$0	\$0	\$0	\$2,804	\$33,660	\$4,206	\$4,206	\$29,454
335 Hydrants	\$0	\$0	\$0	\$0	\$0	\$3,828	\$191,400	\$5,742	\$5,742	\$185,658
336 Backflow Prevention Devices	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
340 Office Furniture & Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
340.1 Office Furniture & Equip, Computers	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
341 Transportation Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
342 Stores Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
343 Tools, Shop, & Garage Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
344 Laboratory Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
345 Power Operated Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
346 Communication Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
347 Miscellaneous Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
348 Other Tangible Plant	\$0	\$0	\$0	\$0	\$0	\$984	\$9,839	\$1,476	\$1,476	\$8,363
Year 2 Totals	\$0	\$0	\$0	\$0	\$0	\$92,572	\$3,928,723	\$138,858	\$138,858	\$3,789,865



Ridgeline Water Company, LLC  
Docket No. W-20589A-08-0173  
Projected Fifth Year of Operation

PROJECTED PLANT AND ACCUMULATED DEPRECIATION

	Year 3 Additions Cost	Year 3 Retirements		Fully Depreciated	Year 3		Year 3 Total Cost	Year 3 Accumulated Depreciation	Year 3 Net Book Value
		Cost	Depreciation		Depr. Expense				
301 Organization	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
302 Franchises	\$0	\$0	\$0	\$0	\$0	\$43,788	\$0	\$0	\$43,788
303 Land & Land Rights	\$0	\$0	\$0	\$0	\$0	\$152,004	\$0	\$0	\$152,004
304 Structures & Improvements	\$0	\$0	\$0	\$0	\$733	\$22,000	\$1,832	\$1,832	\$20,169
307 Wells & Springs	\$0	\$0	\$0	\$0	\$7,854	\$235,856	\$19,635	\$19,635	\$216,221
311 Pumping Equipment	\$0	\$0	\$0	\$0	\$11,234	\$89,870	\$28,084	\$28,084	\$61,786
320 Water Treatment, Plant	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
330.1 Distribution Reservoirs, Storage	\$0	\$0	\$0	\$0	\$7,646	\$344,410	\$19,115	\$19,115	\$325,295
330.2 Distribution Reservoirs, Pressure	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
331 Transmission & Distribution Mains	\$0	\$0	\$0	\$0	\$54,055	\$2,702,753	\$135,138	\$135,138	\$2,567,615
333 Services	\$0	\$0	\$0	\$0	\$3,435	\$103,143	\$8,587	\$8,587	\$94,556
334 Meters & Meter Installations	\$0	\$0	\$0	\$0	\$2,804	\$33,660	\$7,010	\$7,010	\$26,650
335 Hydrants	\$0	\$0	\$0	\$0	\$3,828	\$191,400	\$9,570	\$9,570	\$181,830
336 Backflow Prevention Devices	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
340 Office Furniture & Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
340.1 Office Furniture & Equip, Computers	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
341 Transportation Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
342 Stores Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
343 Tools, Shop, & Garage Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
344 Laboratory Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
345 Power Operated Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
346 Communication Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
347 Miscellaneous Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
348 Other Tangible Plant	\$0	\$0	\$0	\$0	\$984	\$9,839	\$2,460	\$2,460	\$7,379
Year 3 Totals	\$0	\$0	\$0	\$0	\$92,572	\$3,928,723	\$231,429	\$231,429	\$3,697,294



PROJECTED PLANT AND ACCUMULATED DEPRECIATION

	Year 4 Additions Cost	Year 4 Retirements		Fully Depreciated	Year 4 Depr. Expense	Year 4 Total Cost	Year 4 Accumulated Depreciation	Year 4 Net Book Value
		Year 4 Retirements						
		Cost	Depreciation					
301 Organization	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
302 Franchises	\$0	\$0	\$0	\$0	\$0	\$43,788	\$0	\$43,788
303 Land & Land Rights	\$0	\$0	\$0	\$0	\$0	\$152,004	\$0	\$152,004
304 Structures & Improvements	\$0	\$0	\$0	\$0	\$733	\$22,000	\$2,564	\$19,436
307 Wells & Springs	\$0	\$0	\$0	\$0	\$7,854	\$235,856	\$27,489	\$208,367
311 Pumping Equipment	\$0	\$0	\$0	\$0	\$11,234	\$89,870	\$39,318	\$50,552
320 Water Treatment, Plant	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
330.1 Distribution Reservoirs, Storage	\$0	\$0	\$0	\$0	\$7,646	\$344,410	\$26,761	\$317,649
330.2 Distribution Reservoirs, Pressure	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
331 Transmission & Distribution Mains	\$0	\$0	\$0	\$0	\$54,055	\$2,702,753	\$189,193	\$2,513,560
333 Services	\$0	\$0	\$0	\$0	\$3,435	\$103,143	\$12,021	\$91,122
334 Meters & Meter Installations	\$0	\$0	\$0	\$0	\$2,804	\$33,660	\$9,814	\$23,846
335 Hydrants	\$0	\$0	\$0	\$0	\$3,828	\$191,400	\$13,398	\$178,002
336 Backflow Prevention Devices	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
340 Office Furniture & Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
340.1 Office Furniture & Equip, Computers	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
341 Transportation Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
342 Stores Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
343 Tools, Shop, & Garage Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
344 Laboratory Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
345 Power Operated Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
346 Communication Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
347 Miscellaneous Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
348 Other Tangible Plant	\$0	\$0	\$0	\$0	\$984	\$9,839	\$3,444	\$6,395
Year 4 Totals	\$0	\$0	\$0	\$0	\$92,572	\$3,928,723	\$324,001	\$3,604,722



PROJECTED PLANT AND ACCUMULATED DEPRECIATION

	Year 5 Additions Cost	Year 5 Retirements		Fully Depreciated	Year 5 Depr. Expense	Year 5 Total Cost	Year 5 Accumulated Depreciation	Year 5 Net Book Value
		Cost	Depreciation					
301 Organization	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
302 Franchises	\$0	\$0	\$0	\$0	\$0	\$43,788	\$0	\$43,788
303 Land & Land Rights	\$0	\$0	\$0	\$0	\$0	\$152,004	\$0	\$152,004
304 Structures & Improvements	\$0	\$0	\$0	\$0	\$733	\$22,000	\$3,297	\$18,703
307 Wells & Springs	\$0	\$0	\$0	\$0	\$7,854	\$235,856	\$35,343	\$200,513
311 Pumping Equipment	\$0	\$0	\$0	\$0	\$11,234	\$89,870	\$50,552	\$39,318
320 Water Treatment, Plant	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
330.1 Distribution Reservoirs, Storage	\$0	\$0	\$0	\$0	\$7,646	\$344,410	\$34,407	\$310,003
330.2 Distribution Reservoirs, Pressure	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
331 Transmission & Distribution Mains	\$0	\$0	\$0	\$0	\$54,055	\$2,702,753	\$243,248	\$2,459,505
333 Services	\$0	\$0	\$0	\$0	\$3,435	\$103,143	\$15,456	\$87,687
334 Meters & Meter Installations	\$0	\$0	\$0	\$0	\$2,804	\$33,660	\$12,617	\$21,043
335 Hydrants	\$0	\$0	\$0	\$0	\$3,828	\$191,400	\$17,226	\$174,174
336 Backflow Prevention Devices	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
340 Office Furniture & Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
340.1 Office Furniture & Equip. Computers	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
341 Transportation Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
342 Stores Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
343 Tools, Shop, & Garage Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
344 Laboratory Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
345 Power Operated Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
346 Communication Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
347 Miscellaneous Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
348 Other Tangible Plant	\$0	\$0	\$0	\$0	\$984	\$9,839	\$4,428	\$5,411
Year 5 Totals	\$0	\$0	\$0	\$0	\$92,572	\$3,928,723	\$416,573	\$3,512,150



**PROJECTED OPERATING INCOME STATEMENT - FIFTH YEAR AND STAFF RECOMMENDED**

LINE NO.	DESCRIPTION	[A] COMPANY FIFTH YEAR AS FILED	[B] STAFF ADJUSTMENTS	[C] FIFTH YEAR AS ADJUSTED BY STAFF	[D] STAFF RECOMMENDED CHANGES	[E] STAFF RECOMMENDED TOTAL REVENUE
<b>REVENUES:</b>						
1	Water Sales	\$ 266,424	-	\$ 266,424	\$ 72,849	\$ 339,273
2	Establishment Charges	\$ -	-	\$ -	\$ -	\$ -
3	Other Operating Revenue	\$ -	-	\$ -	\$ -	\$ -
4	Total Operating Revenues	\$ 266,424	\$ -	\$ 266,424	\$ 72,849	\$ 339,273
<b>OPERATING EXPENSES:</b>						
6	Salaries and Wages	\$ -	-	\$ -		\$ -
7	Employee Pensions and Benefits	\$ -	-	\$ -		\$ -
8	Purchased Pumping Power	\$ 8,486	-	\$ 8,486		\$ 8,486
9	Chemicals	\$ -	-	\$ -		\$ -
10	Repairs and Maintenance	\$ 459	-	\$ 459		\$ 459
11	Contract Services, Engineering	\$ -	-	\$ -		\$ -
12	Contract Services, Office	\$ 1,344	-	\$ 1,344		\$ 1,344
13	Contract Services, Legal & Accounting	\$ 3,360	-	\$ 3,360		\$ 3,360
14	Contract Services, Billing, Postage, Operation:	\$ 29,389	-	\$ 29,389		\$ 29,389
15	Contract Services, Testing	\$ 2,122	-	\$ 2,122		\$ 2,122
16	Contract Services, Other	\$ -	-	\$ -		\$ -
17	Rental of Building/Property	\$ -	-	\$ -		\$ -
18	Rental of Equipment	\$ -	-	\$ -		\$ -
19	Transportation Expense	\$ -	-	\$ -		\$ -
20	Insurance, Vehicles	\$ -	-	\$ -		\$ -
21	Insurance, General Liability	\$ 1,688	-	\$ 1,688		\$ 1,688
22	Insurance, Workman's Comp	\$ -	-	\$ -		\$ -
23	Water Conservation	\$ -	-	\$ -		\$ -
24	Bad Debt Expense	\$ -	-	\$ -		\$ -
25	Miscellaneous Expense	\$ 1,613	-	\$ 1,613		\$ 1,613
26	Depreciation net of Amortization of CIAC	\$ 100,463	(7,891)	\$ 92,572		\$ 92,572
27	Property Taxes	\$ 11,733	(0)	\$ 11,733	1,280	\$ 13,013
28	Payroll Taxes	\$ -	-	\$ -		\$ -
29	Income Taxes	\$ -	-	\$ -		\$ -
30	Rounding	\$ -	-	\$ -		\$ -
31	Total Operating Expenses	160,657	(7,892)	152,765	1,280	154,045
32	Operating Income (Loss)	105,767	7,892	113,659	71,569	185,227



**PROJECTED STATEMENT OF OPERATING INCOME**

	Per Company Year 1	Per Company Year 2	Per Company Year 3	Per Company Year 4	Per Company Year 5	Staff Adjustments	Staff as Adjusted
<b>Revenues:</b>							
Water Sales	\$ 34,153	\$ 100,759	\$ 167,365	\$ 233,971	\$ 266,424	\$ -	\$ 266,424
Establishment Charges	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Operating Revenue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Operating Revenue</b>	<b>\$ 34,153</b>	<b>\$ 100,759</b>	<b>\$ 167,365</b>	<b>\$ 233,971</b>	<b>\$ 266,424</b>	<b>\$ -</b>	<b>\$ 266,424</b>
<b>Operating Expenses:</b>							
Salaries and Wages	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Employee Pensions and Benefits	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Purchased Pumping Power	\$ 942	\$ 2,912	\$ 4,999	\$ 7,209	\$ 8,486	\$ -	\$ 8,486
Chemicals	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Repairs and Maintenance	\$ 53	\$ 158	\$ 271	\$ 390	\$ 459	\$ -	\$ 459
Contract Services, Engineering	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Contract Services, Office	\$ 1,000	\$ 1,030	\$ 1,093	\$ 1,194	\$ 1,344	\$ -	\$ 1,344
Contract Services, Legal & Accounting	\$ 2,500	\$ 2,575	\$ 2,732	\$ 2,985	\$ 3,360	\$ -	\$ 3,360
Contract Services, Billing, Postage, Operations	\$ 15,000	\$ 15,450	\$ 17,314	\$ 24,967	\$ 29,389	\$ -	\$ 29,389
Contract Services, Testing	\$ 1,000	\$ 1,030	\$ 1,250	\$ 1,802	\$ 2,122	\$ -	\$ 2,122
Contract Services, Other	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Rental of Building/Property	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Rental of Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Transportation Expense	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Insurance, Vehicles	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Insurance, General Liability	\$ 1,500	\$ 1,545	\$ 1,591	\$ 1,639	\$ 1,688	\$ -	\$ 1,688
Insurance, Workman's Comp	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Water Conservation	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Bad Debt Expense	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Miscellaneous Expense	\$ 1,200	\$ 1,236	\$ 1,311	\$ 1,433	\$ 1,613	\$ -	\$ 1,613
Depreciation net of Amortization of CIAC	\$ 50,232	\$ 100,463	\$ 100,463	\$ 100,463	\$ 100,463	\$ (7,891)	\$ 92,572
Property Taxes	\$ 1,972	\$ 3,183	\$ 5,564	\$ 9,032	\$ 11,733	\$ -	\$ 11,733
Payroll Taxes	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Income Taxes	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Rounding	\$ (1)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	<b>\$ 75,398</b>	<b>\$ 129,582</b>	<b>\$ 136,588</b>	<b>\$ 151,114</b>	<b>\$ 160,657</b>	<b>\$ (7,891)</b>	<b>\$ 152,765</b>
<b>OPERATING INCOME/(LOSS)</b>	<b>\$ (41,245)</b>	<b>\$ (28,823)</b>	<b>\$ 30,777</b>	<b>\$ 82,857</b>	<b>\$ 105,767</b>	<b>\$ 7,891</b>	<b>\$ 113,659</b>
<b>Other Income/(Expense):</b>							
419 Interest and Dividend Income	\$ 375	\$ 890	\$ 2,306	\$ 5,646	\$ 10,479	\$ 0	\$ 10,479
421 Non-Utility Income	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
427 Interest Expense	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
4XX Reserve/Replacement Fund Deposit	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
426 Miscellaneous Non-Utility Expense	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
<b>Total Other Income/(Expense)</b>	<b>\$ 375</b>	<b>\$ 890</b>	<b>\$ 2,306</b>	<b>\$ 5,646</b>	<b>\$ 10,479</b>	<b>\$ 0</b>	<b>\$ 10,479</b>
<b>NET INCOME/(LOSS)</b>	<b>(\$40,870)</b>	<b>(\$27,933)</b>	<b>\$33,083</b>	<b>\$88,503</b>	<b>\$116,246</b>	<b>\$7,891</b>	<b>\$124,138</b>



PROJECTED PROPERTY TAX EXPENSE

LINE NO.	DESCRIPTION	[A] STAFF AS ADJUSTED	[B] STAFF RECOMMENDED
1	Company Projected 3rd Year Revenue	\$ 167,365	\$ 167,365
2	Company Projected 4th Year Revenue	233,971	233,971
3	Company Projected 5th Year Revenue	266,424	339,273
4	Not Used	-	-
5	Subtotal	667,760	740,609
6	Number of Years	3	3
7	Three Year Average (Line 5 / Line 6)	222,587	246,870
8	Department of Revenue Multiplier	2	2
9	Revenue Base Value (Line 7 * Line 8)	445,173	493,739
10	Plus: 10% of CWIP	-	-
11	Less: Net Book Value of Licensed Vehicles	-	-
12	Full Cash Value (Line 9 + Line 10 - Line 11)	445,173	493,739
13	Assessment Ratio	21.00%	21.00%
14	Assessment Value (Line 12 * Line 13)	93,486	103,685
15	Property Tax Rate (Statewide Rate)	12.55%	12.55%
16	Staff Fifth Year Adjusted Property Tax Expense (Line 14 * Line 15)	11,733	
17	Company Proposed Property Tax	11,733	
18	Staff Fifth Year Adjustment (Line 16 - Line 17)	\$ (0)	
19	Property Tax - Staff Recommended Revenue (Line 14 * Line 15)		13,013
20	Staff Fifth Year Adjusted Property Tax Expense (Line 16)		11,733
21	Increase in Property Tax Due to Increase in Revenue Requirement		1,280
22	Increase in Property Tax Due to Increase in Revenue Requirement (Line 21)		1,280
23	Increase in Revenue Requirement		72,850
24	Increase in Property Tax Per Dollar Increase in Revenue (Line 22 / Line 23)		1.756976%



Ridgeline Water Company, LLC  
Docket No. W-20589A-08-0173  
Projected Fifth Year of Operation

# PROJECTED CAPITAL STRUCTURE

Line No.	Year 1	Year 2	Year 3	Year 4	Year 5	Staff Adjustment	Ref	Staff as Adjusted
1	\$ -	\$ -	\$ -	\$ -	\$ -	-	-	\$ -
2								
3	\$ -	\$ -	\$ -	\$ -	\$ -	-	-	\$ -
4								
5	2,153,284	2,149,869	2,139,793	2,123,057	2,099,660	\$ (957,660)		\$1,142,000
6	17,680	33,592	47,736	60,112	54,808	\$ -		54,808
7								
8	\$2,170,964	\$ 2,183,461	\$ 2,187,529	\$ 2,183,169	\$ 2,154,468	\$ -		\$ 1,196,808
9								
10	\$ -	\$ -	\$ -	\$ -	\$ -	-	-	\$ -
11								
12	\$2,170,964	\$ 2,183,461	\$ 2,187,529	\$ 2,183,169	\$ 2,154,468	\$ (957,660)		\$ 1,196,808
13								
14								
15	\$1,757,758	\$ 1,782,758	\$ 1,782,758	\$ 1,782,758	\$ 1,782,758	\$ -		\$ 1,782,758
16	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 957,660		\$ 957,660
17	\$ (40,870)	\$ (40,870)	\$ (68,803)	\$ (35,720)	\$ 52,783	\$ -		\$ 52,783
18	\$1,716,888	\$ 1,741,888	\$ 1,713,955	\$ 1,747,038	\$ 1,835,541	\$ 957,660		\$ 2,793,201
19								
20	\$3,887,852	\$ 3,925,349	\$ 3,901,484	\$ 3,930,207	\$ 3,990,009	\$ -		\$ 3,990,009
21								
22	55.84%	55.62%	56.07%	55.55%	54.00%			30.00%
23	44.16%	44.38%	43.93%	44.45%	46.00%			70.00%
24	100.00%	100.00%	100.00%	100.00%	100.00%			100.00%

## Advances in Aid of Construction, Net of Refunds

### Advances In Aid of Construction (AIAC)

### Meter and Service Line Advances (Meter Deposits)

### Subtotal

## Contributions In Aid of Construction (Net of Amort.)

## Total Advances and Contributions

## Equity

### Common Stock

### Paid in Capital

### Retained Earnings

### Subtotal

## Total Capital (L1 + L3 + L12 + L18)

## Percent of Total AIAC/CIAC to Total Capital

## Percent of Total Equity to Total Capital

## Total



## RATE DESIGN

### Monthly Customer Charges

5/8" x 3/4" Meter  
3/4" Meter  
1" Meter  
1½" Meter  
2" Meter  
3" Meter  
4" Meter  
6" Meter

Proposed Rates	
Company	Staff
\$105.50	\$ 100.00
158.25	150.00
263.75	250.00
527.50	500.00
844.00	800.00
1,688.00	1,500.00
2,637.50	2,500.00
5,275.00	5,000.00

**Gallons Included In Monthly Customer Charge**  
For all meter sizes

0 0

### Uniform Commodity Rate

Per 1,000 gallons for all usage except Standpipe

\$ 5.00 N/A

### Commodity Charges - Per 1,000 Gallons of Usage

#### 5/8-Inch x 3/4-Inch Meters

0 to 3,000 gallons	n/a \$ 6.00
3,001 to 10,000 gallons	n/a \$ 10.00
10,001 and above gallons	n/a \$ 13.00

#### 3/4-Inch Meters

0 to 3,000 gallons	n/a \$ 6.00
3,001 to 10,000 gallons	n/a \$ 10.00
10,001 and above gallons	n/a \$ 13.00

#### 1-Inch Meters

3,001 to 10,000 gallons	n/a \$ 10.00
10,001 and above gallons	n/a \$ 13.00

#### 1 1/2 - Inch Meters

3,001 to 10,000 gallons	n/a \$ 10.00
10,001 and above gallons	n/a \$ 13.00

#### 2-Inch Meters

3,001 to 10,000 gallons	n/a \$ 10.00
10,001 and above gallons	n/a \$ 13.00



## RATE DESIGN Continued

### Commodity Charges - Per 1,000 Gallons of Usage

#### 3-Inch Meters

3,001 to 10,000 gallons  
10,001 and above gallons

-Proposed Rates-	
Company	Staff

n/a \$ 10.00  
n/a \$ 13.00

#### 4-Inch Meters

3,001 to 10,000 gallons  
10,001 and above gallons

n/a \$ 10.00  
n/a \$ 13.00

#### 6-Inch Meters

3,001 to 10,000 gallons  
10,001 and above gallons

n/a \$ 10.00  
n/a \$ 13.00

### Standpipe or Bulk Water Rate per 1,000 gallons

(a) (a)

### Service Charges

- a. Establishment of Service per Rule R-14-2-403.D  
Establishment of Service, after hours per rule R14-2-403.D.2

-Proposed Rates-	
Company	Staff
\$ 25.00	\$ 25.00
40.00	40.00

- b. Re-establishment of Service per Rule 14-2-403.D

(b) (b)

- c. Reconnection of service per Rule 14-2-403.D.1

25.00 25.00

- d. Moving meter at customer request per Rule R14-2-405.B.5

Cost (c) Cost (c)

- e. After hours service charge, **per hour**, R-14-2-403.D  
After hours service charge, **flat rate**, R-14-2-403.D

40.00 n/a  
n/a 40.00

- f. Minimum Deposit per Rule R-14-2-403.B

Per Rules Per Rules

- h. Meter Reread per Rule R14-2-408 (If meter reading is correct per rule)

15.00 15.00

- i. NFS Check Charge per Rule R14-2-409.F.1

15.00 15.00

- j. Late payment charge for delinquent bills per Rule R14-2-409.C.1

1.50% 1.50%

- k. Deferred Payment Finance Charge R14-2-409.G

1.50% 1.50%

(a): Company does not intend to offer standpipe service  
(b): Monthly minimum times months off system  
(c): Cost to include parts, labor, overhead, and all applicable taxes.



**RATE DESIGN**  
**Continued**

**Service Line and Meter Installation Charges per R-14-12-405.B**

	Company Proposed			Staff Proposed		
	Services	Meters	Total	Services	Meters	Total
5/8" x 3/4" Meter	\$ 385	\$ 135	\$ 520	\$ 415	\$ 105	\$ 520
3/4" Meter	385	215	600	415	205	620
1" Meter	435	255	690	465	265	730
1½" Meter	470	465	935	520	475	995
2" Meter (Turbine)	630	965	1,595	800	995	1,795
2" Meter (Compound)	630	1,690	2,320	800	1,840	2,640
3" Meter (Turbine)	805	1,470	2,275	1,015	1,620	2,635
3" Meter (Compound)	845	2,265	3,110	1,135	2,495	3,630
4" Meter (Turbine)	1,170	2,350	3,520	1,430	2,570	4,000
4" Meter (Compound)	1,230	3,245	4,475	1,610	3,545	5,155
6" Meter (Turbine)	1,730	4,545	6,275	2,150	4,925	7,075
6" Meter (Compound)	1,770	6,280	8,050	2,270	6,820	9,090

-Proposed Rates-	
Company	Staff

Main Extension and additional facilities agreements  
per Rule R-14-2-406.B

Cost (b) N/A

(b): Cost to include parts, labor, overhead, and  
all applicable taxes, including income taxes.

N/A: Not applicable. Main line extension  
agreements must be submitted to the ACC for  
review and approval per Rule R14-2-406.

All sales taxes will be passed through to customers

**RULES AND REGULATIONS**

\*The Company has adopted the Rules and Regulation established by the Commission as the  
basis for its operating procedures. AAC R14-204-01 through ACC R14-2-411 will be controlling  
of Company procedures, unless specific Commission Orders provide otherwise.



## MEMORANDUM

DATE: June 17, 2008

TO: Kiana M. Sears  
Executive Consultant I

FROM: Katrin Stukov  
Utilities Engineer

RE: Ridgeline Water Company, L.L.C.  
Docket No. W-20589A-08-0173 (New CC&N)

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### **Introduction**

Ridgeline Water Company, L.L.C. ("Ridgeline" or "Company") submitted an application for a Certificate of Convenience and Necessity ("CC&N") to provide water service to a development known as Ridgeline Estates (136 lots). The total requested area includes approximately 632 acres of land, owned by Pollux Properties, L.L.C. ("Developer"), in Pima County, southwest of Tucson.

### **Proposed Water System**

The Company is proposing to construct a new water system to service Ridgeline Estates. As part of this application, Ridgeline submitted a design report prepared by Greg Carlson Engineering, L.L.C. for the proposed water distribution system, and a groundwater study performed by Chuck M. Dickens for the two production wells.

As proposed, the new water system will consist of the following major components: two wells with an estimated combined production capacity of 400 gallon per minute, three storage tanks with a minimum total storage capacity of 196,840 gallons, one 5,000 gallon pressure tank, six booster pumps and water distribution system, including fire protection. The proposed water system will be divided into five pressure zones.

According to the Company construction of the water system will begin in 2010 and will be completed over a twelve month period<sup>1</sup>. Based on Company projections it will be serving 34 customers in the first year and 136 customers by the end of the fifth year in the requested area.

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<sup>1</sup> Per Company's responses dated April 18, 2008.



Staff concludes that the Company's proposed water system will have adequate well production and storage capacities to serve the requested area within a conventional five year planning period and can reasonably be expected to develop additional well production and storage capacities as required in the future.

#### Construction Cost Estimate

The submitted construction cost estimate prepared by Thomas J. Bourassa, C.P.A. and Greg Carlson Engineering included spreadsheets with the breakdown of the proposed plant facility costs and other cost information, at a total projected cost of \$3,928,723. A breakdown of this cost by major category is as follows:

Item	Cost
Water Distribution System	\$ 3,174,714
Contingency 10%	\$ 317,471
Wells	\$ 235,856
Studies	\$ 4,889
Land	\$ 152,004
Franchise	\$ 43,788
Total	\$ 3,928,723

The Company is planning to fund the proposed plant facilities by using a combination of funds provided by the developer, in form of advances in aid of construction and common equity, through the use of the developer's Main Extension Agreements and/or Off-site Facilities Agreements.

Staff concludes that the proposed water system facilities and its cost estimate appear reasonable and appropriate. However, no "used and useful" determinations of the proposed plant items were made and no particular treatment should be inferred for rate making or rate base purposes.

#### **Arizona Department of Environmental Quality ("ADEQ") Compliance**

##### Compliance Status

ADEQ or its formally delegated agent, the Pima County Department of Environmental Quality ("PDEQ") monitors for compliance. The Company's proposed water system does not have any plant facilities yet, therefore, the PDEQ compliance status is not applicable at this time.

##### Approval to Construct

The Company has not submitted the Certificate of Approval to Construct ("ATC") for construction of the water plant facilities from the PDEQ.



## **Arizona Department of Water Resources ("ADWR") Compliance**

### **Compliance Status**

There is no ADWR compliance status to report at this time. The Company's proposed water system will be located in the Tucson Active Management Area ("AMA") and will be subject to the Tucson AMA reporting requirements. The Company will be subject to ADWR filing of System Water Plan, which includes a Water Supply Plan, Drought Preparedness Plan and Water Conservation Plan, per Arizona Revised Statutes § 45-341-343.

### **Certificate of Assured Water Supply**

The Company submitted a copy of the ADWR Analysis of Assured Water Supply. The Company has not yet received a copy of the Developer's Certificate of Assured Water Supply issued by ADWR for the area being requested.

### **Water Depreciation Rates**

Staff has developed typical and customary depreciation rates within a range of anticipated equipment life. These rates are presented in Table A. The depreciation rate table submitted by the Company with this application deviates from Staff's typical and customary water depreciation rate table (For example, NARUC Accounts No. 320.1, 320.2, 330.1, 330.2, 334, 340.1 and 348). Staff recommends that the Company adapt Staff's typical and customary depreciation rates in the accounts listed in Table A.



Table A. Water Depreciation Rates

**TYPICAL DEPRECIATION RATES FOR WATER COMPANIES**

NARUC Account No.	Depreciable Plant	Average Service Life (Years)	Annual Accrual Rate (%)
304	Structures & Improvements	30	3.33
305	Collecting & Impounding Reservoirs	40	2.50
306	Lake, River, Canal Intakes	40	2.50
307	Wells & Springs	30	3.33
308	Infiltration Galleries	15	6.67
309	Raw Water Supply Mains	50	2.00
310	Power Generation Equipment	20	5.00
311	Pumping Equipment	8	12.5
320	Water Treatment Equipment		
320.1	Water Treatment Plants	30	3.33
320.2	Solution Chemical Feeders	5	20.0
330	Distribution Reservoirs & Standpipes		
330.1	Storage Tanks	45	2.22
330.2	Pressure Tanks	20	5.00
331	Transmission & Distribution Mains	50	2.00
333	Services	30	3.33
334	Meters	12	8.33
335	Hydrants	50	2.00
336	Backflow Prevention Devices	15	6.67
339	Other Plant & Misc Equipment	15	6.67
340	Office Furniture & Equipment	15	6.67
340.1	Computers & Software	5	20.00
341	Transportation Equipment	5	20.00
342	Stores Equipment	25	4.00
343	Tools, Shop & Garage Equipment	20	5.00
344	Laboratory Equipment	10	10.00
345	Power Operated Equipment	20	5.00
346	Communication Equipment	10	10.00
347	Miscellaneous Equipment	10	10.00
348	Other Tangible Plant	----	----

## NOTES:

1. These depreciation rates represent average expected rates. Water companies may experience different rates due to variations in construction, environment, or the physical and chemical characteristics of the water.
2. Acct. 348, Other Tangible Plant may vary from 5% to 50%. The depreciation rate would be set in accordance with the specific capital items in this account.



## Service Line and Meter Installation Charges

Service line and meter installation charges are refundable advances. The Company has submitted a prior listing of Staff's customary range of charges for the service line and meter installation charges. However, Staff will recommend its updated version and its lower end of its customary range of charges as shown in Table B.

Table B. Service Line and Meter Installation Charges

Meter Size	Company's Proposed Tariff			Staff's Recommended Tariff		
	Service Line Charge	Meter Charge	Total Charge	Service Line Charge	Meter Charge	Total Charge
5/8 x 3/4-inch	\$385	\$135	\$520	\$415	\$105	\$520
3/4-inch	\$385	\$215	\$600	\$415	\$205	\$620
1-inch	\$435	\$255	\$690	\$465	\$265	\$730
1-1/2-inch	\$470	\$465	\$935	\$520	\$475	\$995
2-inch Turbine	\$630	\$965	\$1,595	\$800	\$995	\$1,795
2-inch Compound	\$630	\$1,690	\$2,320	\$800	\$1,840	\$2,640
3-inch Turbine	\$805	\$1,470	\$2,275	\$1,015	\$1,620	\$2,635
3-inch Compound	\$845	\$2,265	\$3,110	\$1,135	\$2,495	\$3,630
4-inch Turbine	\$1,170	\$2,350	\$3,520	\$1,430	\$2,570	\$4,000
4-inch Compound	\$1,230	\$3,245	\$4,475	\$1,610	\$3,545	\$5,155
6-inch Turbine	\$1,730	\$4,545	\$6,275	\$2,150	\$4,925	\$7,075
6-inch Compound	\$1,770	\$6,280	\$8,050	\$2,270	\$6,820	\$9,090

## Curtailment Plan Tariff

The curtailment tariff submitted by the Company with its application did not include the standard restriction suspending standpipe service during Stage 3 and 4 curtailments. Staff recommends that the Company file a revised curtailment tariff that prohibits the use of standpipe service during Stage 3 and 4 curtailments (see recommendation in the Summary Section below).

## Backflow Prevention Tariff

The Company's application did not include a backflow prevention tariff. Staff recommends that the Company submit a backflow prevention tariff for its system (see recommendation in the Summary Section below).



## Summary

### Conclusions

1. The Company's proposed water system will have adequate well production and storage capacities to serve the requested area within a conventional five year planning period and can reasonably be expected to develop additional well production and storage capacities as required in the future.
2. The proposed water system facilities and cost appear reasonable. However, no "used and useful" determination of this plant-in-service was made, and no particular future treatment should be inferred for rate making or rate base purposes in the future.
3. The Company has not submitted the ATC for the proposed water system facilities from the PDEQ.
4. The Company's proposed water system will be located in the Tucson AMA and will be subject to Tucson AMA reporting requirements. The Company will be subject to ADWR filing of System Water Plan, which includes a Water Supply Plan, Drought Preparedness Plan and Water Conservation Plan, per Arizona Revised Statutes § 45-341-343.
5. The Company submitted a copy of the ADWR Analysis of Assured Water Supply. The Company has not yet received a copy of the Developer's Certificate of Assured Water Supply issued by ADWR for the area being requested.

### Recommendations

1. Staff recommends that the Company file with Docket Control, as a compliance item in this docket, a copy of the ATC issued by PDEQ for water system facilities needed to serve the Ridgeline Estates development within two years of the effective date of the decision in this case.
2. Staff recommends that the Company adopt Staff's typical and customary depreciation rates in the accounts listed in Table A.
3. Staff recommends that the Company adopt Staff recommended service line and meter installation charges as delineated in Table B.
4. Staff recommends that the Company file a revised curtailment tariff with Docket Control, as a compliance item in this same docket, within 45 days after the effective date of the decision in this case for the review and certification of Staff. Staff further recommends that this tariff includes a restriction for operation of a standpipe in conformance with the sample tariff found on the Commission's web site at [www.azcc.gov/divisions/utilities/forms/CurtailmentTariffStandard.pdf](http://www.azcc.gov/divisions/utilities/forms/CurtailmentTariffStandard.pdf)

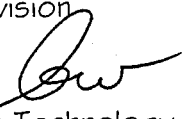


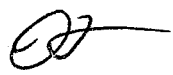
5. Staff recommends that the Company file a backflow prevention tariff with Docket Control, as a compliance item in this same docket, within 45 days after the effective date of the decision in this case for the review and certification of Staff. Staff further recommends that the tariff shall generally conform to the sample tariff found posted on the Commission's website at [www.azcc.gov/divisions/utilities/forms/crossconnectbackflow.pdf](http://www.azcc.gov/divisions/utilities/forms/crossconnectbackflow.pdf) Staff recognizes that the Company may need to make minor modifications to the sample tariff according to its specific management, operational, and design requirements as necessary and appropriate.
6. Staff recommends that the Company file with Docket Control, as a compliance item in the same docket, a copy of the Developer's Certificate of Assured Water Supply, for the area being requested, within two years after the effective date of the decision in this case.



MEMORANDUM

TO: Kiana Sears  
Executive Consultant I  
Utilities Division

FROM: Barb Wells   
Information Technology Specialist  
Utilities Division

THRU: Del Smith   
Engineering Supervisor  
Utilities Division

DATE: June 9, 2008

RE: **RIDGELINE WATER COMPANY, LLC (DOCKET NO. W-20589A-08-0173)**

The area requested by Ridgeline for a CC#N for water service has been plotted with no complications using the legal description provided with the application (a copy of which is attached).

Also attached is a copy of the map for your files.

:bsw

Attachments

cc: Mr. Lawrence Robertson  
Ms. Deb Person (Hand Carried)  
Ms. Katrin Stukov



# PIMA COUNTY

Map No. 54

## RANGE 14 East

06	05	04	03	02	01
07	08	09	10	11	12
	17	16	15	14	13
	20	21	22	23	24
30	28	27	26	25	
31	32	33	34	35	36

## TOWNSHIP 19 South

(1)

Ridgeline Water Company, LLC  
Docket No. W-20589A-08-0173  
Application for CC&N



**Exhibit A**

**Legal Description**

**Parcel 1:**

The Northwest quarter of the Southeast quarter of Section 18, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona.

**EXCEPT** all coal and other minerals as reserved in Patent from United States of America.

JV arb 7

**Parcel 2:**

The Northeast quarter of the Southwest quarter of Section 18, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona

**EXCEPT** all coal and other minerals as reserved in Patent from United States of America.

JV arb 2

**Parcel 3:**

The Southwest quarter of the Southeast quarter of Section 18, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona.

**EXCEPT** all coal and other minerals as reserved in Patent from United States of America.

JV arb 9

**Parcel 4:**

The Northwest quarter of the Southeast quarter of Section 19, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona.

**EXCEPT** all coal and other minerals as reserved in Patent from United States of America.

JV arb 10

**Parcel 5:**

A portion of Government Lot 4 in Section 19, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona, described as follows:

**BEGINNING** at the Southwesterly corner of said Lot 4, which is monumented by a set ½ inch rebar tagged "RLS 35111";

**THENCE** North 00 degrees 03 minutes 21 seconds West, upon the Westerly line of said Lot 4, a distance of 58.48 feet;

**THENCE** South 88 degrees 41 minutes 16 seconds East, a distance of 206.46 feet;



THENCE North 81 degrees 11 minutes 10 seconds East, a distance of 278.20 feet;

THENCE North 61 degrees 47 minutes 14 seconds East, a distance of 388.51 feet;

THENCE North 57 degrees 52 minutes 05 seconds East, a distance of 585.08 feet to the Easterly line of said Lot 4;

THENCE South 00 degrees 03 minutes 10 seconds East, upon said Easterly line, a distance of 590.64 feet to the Southeasterly corner thereof;

THENCE South 89 degrees 58 minutes 29 seconds West, upon the Southerly line of said Lot 4, a distance of 1,320.49 feet to the POINT OF BEGINNING.

EXCEPT all coal and other minerals as reserved in Patent from United States of America.

JV arb 43

Parcel 6:

The South half of the Southeast quarter of the Northwest quarter of Section 19, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona.

EXCEPT all coal and other minerals as reserved in Patent from United States of America.

JV arb 25

Parcel 7:

The South half of the Northeast quarter of the Southwest quarter of Section 19, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona.

EXCEPT all coal and other minerals as reserved in Patent from United States of America.

JV arb 34

Parcel 8:

The East half of the North half of the Northeast quarter of the Southwest quarter of Section 19, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona.

EXCEPT all coal and other minerals as reserved in Patent from United States of America.

JV arb 36

Parcel 8A:

An easement for ingress, egress, and utilities over, under, and across the North half of the Northeast quarter of the Southwest quarter of Section 19, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona, said easement being 30 feet in width, the centerline of which extends from the mid point of the North line of the North half of the Northeast quarter of the Southwest quarter of Section 19, Township 19 South, Range 14 East, Southerly to the mid point of the North line of the South half



of the Northeast quarter of the Southwest quarter of Section 19, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona.

Parcel 9:

The South half of the Northeast quarter of the Southeast quarter of Section 19, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona.

EXCEPT coal and other minerals as reserved in the Patent from United States of America.

JV arb 29

Parcel 9A:

A right-of-way for ingress and egress and an easement for poles, wires, pipes, and conduits for lighting, heating, electricity, gas, telephone, and any other public or quasi-public utility service purposes, on, over, and under the North 30 feet of the South half of the Southeast quarter of Section 19, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona.

Parcel 10:

The North half of the Northeast quarter of the Southeast quarter of Section 19, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona.

EXCEPT all coal and other minerals as reserved in Patent from United States of America.

TOGETHER WITH a right-of-way and easement over the West 20 feet of the South half of the Northeast quarter of the Southeast quarter of Section 19, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona.

JV arb 18

Parcel 11:

The West one-half of the Southeast quarter of the Southeast quarter of Section 19, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona.

EXCEPT all coal and other minerals as reserved in Patent from United States of America.

JV arb 19



Parcel 12:

The North half of the Southwest quarter of the Southeast quarter of Section 19, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona.

EXCEPT all coal and other minerals as reserved in Patent from United States of America.

JV arb 33

Parcel 13:

The Southwest quarter of the Southwest quarter of the Southeast quarter of Section 19, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona.

EXCEPT all coal and other minerals as reserved in Patent from United States of America.

JV arb 30

Parcel 14:

The Southeast quarter of the Southwest quarter of the Southeast quarter of Section 19, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona.

EXCEPT all coal and other minerals as reserved in Patent from United States of America.

JV arb 32

Parcel 15:

A portion of Government Lot 3 in Section 19, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona, described as follows:

The South 160.00 feet of Government Lot 3 in Section 19, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona.

EXCEPT all coal and other minerals as reserved in Patent from United States of America.

JV arb 45

Parcel 16:

The Southwest quarter of the Southwest quarter of Section 20, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona.

EXCEPT all coal and other minerals as reserved in Patent from United States of America.

JV arb 6

Parcel 17:

A portion of the Northwest quarter of the Southwest quarter of Section 20, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona, described as follows:



The West 330.00 feet of the Northwest quarter of the Southwest quarter of Section 20, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona.

EXCEPT all coal and other minerals as reserved in Patent from United States of America.

Portion of JV arb 5

Parcel 18:

The South half of the Northeast quarter of Section 29, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona.

EXCEPT all coal and other minerals as reserved in Patent from United States of America.

JV arbs 4 and 6

Parcel 19:

The West half of the Northeast quarter of the Northwest quarter of Section 29, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona.

EXCEPT all coal and other minerals as reserved in Patent from United States of America.

JV arb 30

Parcel 20:

The East half of the Northeast quarter of the Northwest quarter of Section 29, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona.

EXCEPT all coal and other minerals as reserved in Patent from United States of America.

JV arb 31

Parcel 21:

The West half of the Northwest quarter of the Northwest quarter of Section 29, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona.

EXCEPT all coal and other minerals as reserved in Patent from United States of America.

JV arb 29

Parcel 22:

The Southwest quarter of the Northeast quarter of the Northeast quarter of Section 30, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona.

EXCEPT all coal and other minerals as reserved in Patent from United States of America.

JV arb 15



Parcel 23:

The South 660 feet of the East 330 feet thereof, of the Northeast quarter of the Northeast quarter of Section 30, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona.

EXCEPT all coal and other minerals as reserved in Patent from United States of America.

JV arb 24

Parcel 24:

The Northeast quarter of the Northeast quarter of Section 30, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona.

EXCEPT the South 660 feet of the East 330 feet thereof.

FURTHER EXCEPT the Southwest quarter thereof.

FURTHER EXCEPT all coal and other minerals as reserved in Patent from United States of America.



**Parcel 28:**

The North half of the Southeast Quarter of the Northwest Quarter of Section 29, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona.

**EXCEPT** all coal and other minerals, as reserved in Patent from United States of America

(Jv arb 15)

(State Tax Parcel: 304-45-007D)

**Parcel 29**

The West half of the Northwest Quarter of the Northeast Quarter of Section 19, Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona.

**Parcel 30:**

A portion of Government Lot 4 of Section 19, Township 19 South, Range 14 East, Gila and Salt River Meridian, Pima County, Arizona, described as follows:

**COMMENCING** at the Southwesterly corner of said Lot 4, which is monumented by a set ½ inch rebar tagged "RLS 35111";

**THENCE** North 00 degrees 03 minutes 21 seconds West, upon the Westerly line of said Lot 4, 58.48 feet to the **POINT OF BEGINNING**;

**THENCE** continue North 00 degrees 03 minutes 21 seconds West, upon said Westerly line, 1259.24 feet to the Northwesternly corner of said Lot 4;

**THENCE** North 89 degrees 57 minutes 32 seconds East, upon the Northerly line of said Lot 4, 1319.69 feet to the Northeastly corner thereof;

**THENCE** South 00 degrees 03 minutes 10 seconds East, upon the Easterly line of said Lot 4, 727.44 feet;

**THENCE** South 57 degrees 52 minutes 05 seconds West, 585.08 feet;

**THENCE** South 61 degrees 47 minutes 14 seconds West, 388.51 feet;

**THENCE** South 81 degrees 11 minutes 10 seconds West, 278.20 feet;

**THENCE** North 88 degrees 41 minutes 16 seconds West, 206.46 feet to the **POINT OF BEGINNING**.



**EXCEPT all coal and other minerals, as reserved in Patent from United States of America.**

**(JV Arb. 44)**

**Parcel 31:**

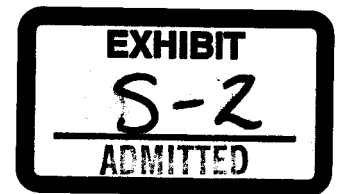
**The Southeast Quarter of the Northwest Quarter of the Northwest Quarter of Section 29 Township 19 South, Range 14 East, Gila and Salt River Base and Meridian, Pima County, Arizona.**

**EXCEPT all coal and other minerals, as reserved in Patent from United States of America.**

**(Jv arb 14)**

**(State Tax Parcel: 304-45-009D)**





MEMORANDUM

TO: Docket Control

FROM: Ernest G. Johnson  
Director  
Utilities Division

DATE: September 30, 2008

RE: **SUPPLEMENTAL STAFF REPORT – ADDENDUM TO RIDGELINE  
WATER COMPANY, L.L.C.’S APPLICATION FOR A CERTIFICATE OF  
CONVENIENCE AND NECESSITY DOCKET NO. W-20589A-08-0173**

Attached is the Supplemental Staff Report for Ridgeline Water Company, L.L.C.’s application for a Certificate of Convenience and Necessity to provide water service. Staff is recommending issuance of an Order Preliminary.

EGJ:KMS:red

Originator: Kiana M. Sears



Service List for: Ridgeline Water Company, L.L.C.  
Docket No. W-20589A-08-0173

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Ms. Lyn Farmer  
Chief, Hearing Division  
Arizona Corporation Commission  
1200 West Washington Street



**SUPPLEMENTARY STAFF REPORT  
UTILITIES DIVISION  
ARIZONA CORPORATION COMMISSION**

**RIDGELINE WATER COMPANY, L.L.C.  
DOCKET NO. W-20589A-08-0173**

**APPLICATION FOR A CERTIFICATE OF  
CONVENIENCE & NECESSITY**

**SEPTEMBER 30, 2008**



## INTRODUCTION & BACKGROUND

On March 21, 2008, Ridgeline Water Company, L.L.C. ("Ridgeline" or "Company") filed an application with the Arizona Corporation Commission ("Commission") for a Certificate of Convenience and Necessity ("CC&N"). Ridgeline is a wholly owned subsidiary of Pollux Properties, L.L.C. ("Pollux" or "Parent Company"). On June 25, 2008, Staff submitted a memorandum recommending denial of Ridgeline's CC&N application.

Staff's recommendation was based on the Parent Company's 2007 unaudited balance sheet and income statement that reported total assets of approximately \$3.97 million, total liabilities of approximately \$3.96 million, total equity of \$15,639 and net income of \$703. These financial statements indicated that the Parent Company was highly leveraged and might not have had sufficient resources to fund any capital and/or operating cash shortages that Ridgeline might experience. Consequently, Staff concluded that Ridgeline did not have adequate financial capacity to provide the requested service.

On September 5, 2008, the Company filed a supplement to its CC&N application. The purpose of the supplement, among other things, was to address the Company's lack of financial capacity. Staff reviewed the material presented by the Company and Staff is now recommending that the Company be issued an Order Preliminary.

## STAFF'S RESPONSE

The following are the Company's comments to Staff's original Staff Report along with Staff's responses.

1. The Parent Company proposes to convert its debt which is currently in the form of Deeds of Trust to equity to alleviate the high level of debt in the Parent Company's capital structure. The Company states "Each of these investors has agreed to convert its current beneficial interest under a Deed of Trust into an equity ownership interest in Pollux."

### Staff's Response:

Staff agrees that this action would reduce the high level of debt in the Parent Company's capital structure.

2. To address the lack of financial resources needed to fund capital and/or operating cash shortages, the Company has asserted that "the investors of Pollux are prepared to (i) either directly invest as common equity owners of Ridgeline, or (ii) assist in raising the projected \$1.8 million in common equity for the water company once it has received a CC&N authorizing it to provide water service to Ridgeline Estates."



Staff's Response:

Staff has reviewed the Company's proposal. The Company did not provide the financial statements of its investors to support its claims that the investors had sufficient financial resources to provide the cash, should Ridgeline experience any capital and/or operating cash shortages. Therefore, Staff could not rely on the Company's assertion.

3. The Company requests that Staff's recommendation to condition approval of the CC&N upon the Company obtaining either a performance bond or an irrevocable sight draft letter of credit in the amount of \$250,000 be withdrawn.

Staff's Response:

Staff continues to recommend that approval of the CC&N be conditioned upon the Company obtaining either a performance bond or an irrevocable sight draft letter of credit in the amount of \$250,000 as discussed in the original Staff Report.

4. The Company requests that Staff's recommendation to condition approval of the CC&N upon the Company obtaining a capital structure of 0.00 percent debt, 30.00 percent AIAC/CIAC, and 70.00 percent equity by year five be withdrawn.

Staff's Response:

Staff continues to recommend that approval of the CC&N be conditioned upon the Company obtaining a capital structure of 0.00 percent debt, 30.00 percent AIAC/CIAC, and 70.00 percent equity by year five as discussed in the original Staff Report.

**STAFF'S CC&N RECOMMENDATIONS**

Staff recommends the Commission issue an Order Preliminary to Ridgeline Water Company, L.L.C. for a CC&N for water service within portions of Pima County, Arizona subject to compliance with the following conditions:

1. That the Company files with Docket Control, a copy of the Approval to Construct issued by Pima Department of Environmental Quality for water system facilities needed to serve the Ridgeline Estates development within three years of the effective date of the decision granting an Order Preliminary.
2. That the Company be required to obtain a performance bond or irrevocable sight draft letter of credit for \$250,000, before the Company serves its first customer and file evidence of such bond or irrevocable sight draft letter of credit in Docket Control as a compliance item in this docket.



3. That the Company submit documentation demonstrating the transaction to convert the debt to equity has taken place as discussed in item No. 1 under STAFF'S RESPONSE above.
4. That Ridgeline files with Docket Control, as a compliance in this docket, a copy of the Developer's Certificate of Assured Water Supply, for the area being requested, within ~~one~~ year after the effective date of the decision issuing a CC&N in this case. *two*
5. That the Company adopt Staff's typical and customary depreciation rates in the accounts listed in Table A of the Engineering Report.
6. That the Company adopt Staff's recommended service line and meter installation charges as delineated in Table B of the Engineering Report.
7. That the Company file a revised curtailment tariff with Docket Control, as a compliance item in this same docket, within 3 years after the effective date of the decision granting the Order Preliminary for the review and certification of Staff. Staff further recommends that this tariff includes a restriction for operation of a standpipe in conformance with the sample tariff found on the Commission's web site at [www.azcc.gov/divisions/utilities/forms/CurtailmentTariffStandard.pdf](http://www.azcc.gov/divisions/utilities/forms/CurtailmentTariffStandard.pdf)
8. That the Company file a backflow prevention tariff with Docket Control, as a compliance item in this same docket, within 3 years after the effective date of the decision granting an Order Preliminary for the review and certification of Staff. Staff further recommends that the tariff shall generally conform to the sample tariff found posted on the Commission's website at [www.azcc.gov/divisions/utilities/forms/crossconnectbackflow.pdf](http://www.azcc.gov/divisions/utilities/forms/crossconnectbackflow.pdf). Staff recognizes that the Company may need to make minor modifications to the sample tariff according to its specific management, operational, and design requirements as necessary and appropriate.
9. That approval of Ridgeline's CC&N be made conditional upon Ridgeline obtaining Staff's recommended capital structure by the end of the fifth year of operation.
10. Approval of the Staff recommended rates and charges as shown in Schedule CSB-W5 in the original Staff Report.
11. That Ridgeline be ordered to notify the Commission, through Docket Control, within 15 days of providing services to its first customers.



12. That Ridgeline be required to file a rate application no later than six months following the fifth anniversary of the date the Company begins providing service to its first customer.
13. That Ridgeline be required to maintain its books and records in accordance with the National Association of Regulatory Utility Commissioners Uniform System of Accounts for Water and Wastewater Utilities.
14. After Ridgeline has complied with the above Requirements Nos. 1, 3, 7, and 8. Ridgeline shall make a filing stating so. Within 30 days of this filing, Staff shall file a response. The Commission should schedule this item for a vote to grant the CC&N as soon as possible after Staff's filing confirms Ridgeline's compliance with Requirement Nos. 1, 3, 7, and 8. If Ridgeline does not comply with any one of the Requirement Nos. 1, 3, 7, and 8 within the time specified, the Order Preliminary shall be null and void, and this docket shall be closed.